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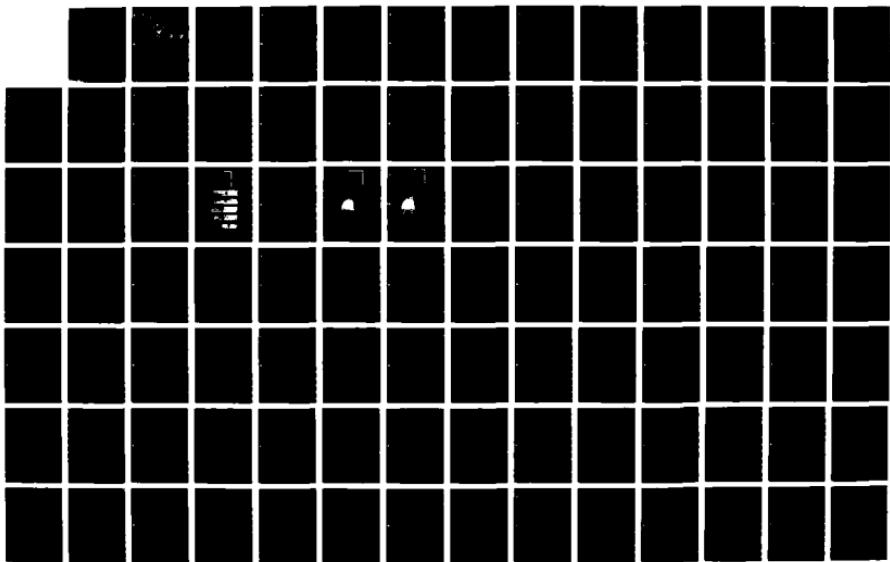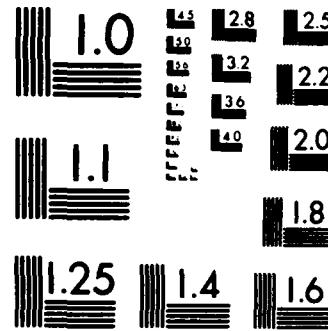
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THESIS

SUGGESTIONS FOR ENHANCING THE PROCUREMENT CAREER
MANAGEMENT PROGRAM IN THE UNITED STATES COAST GUARD

by

Lawrence C. Vose

June 1987

Thesis Advisor: Raymond V. Smith

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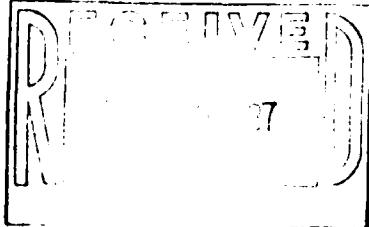
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This thesis examines the Procurement Career Management System in the United States Coast Guard. The intent of this study is to focus on the Contracting Series Personnel (GS-1102 and Military equivalent) training and education requirements. In the course of this study, the contracting "body of knowledge", the resources available to provide this required knowledge and skills, and the many ways that various Federal Agencies utilize these resources were addressed. An examination of the elements that constitute a Procurement Career Management System is provided along with an analysis of how these elements are implemented in the Coast Guard and other Federal Agencies. The study recommends the establishment of a Coast Guard Procurement Career Manager/Training Coordinator and the formation of a Procurement Career Management Board. Additional specific recommendations include the development of an acquisition personnel MIS, the use of Individual Development Plans and an entry

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19. ABSTRACT - (continued)

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effort are also made.

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Suggestions for Enhancing
the Procurement Career Management Program
in the United States Coast Guard

by

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Lieutenant United States Coast Guard
B.S., United States Coast Guard Academy, 1977

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

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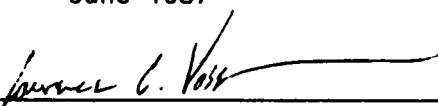
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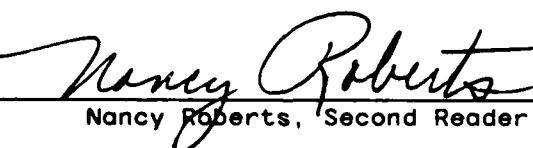
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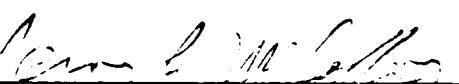
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ABSTRACT

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TABLE OF CONTENTS

I. INTRODUCTION

A. FOCUS OF THIS STUDY

There is a gap between the Coast Guard's widening mission responsibilities and operational complexities and the skill level of its contracting and program work force. The reason is largely a lack of adequate career development programs and training for each of the disciplines. [Ref. 1:p. 2-24]

This was the conclusion that the Logistics Management Institute (LMI) reported in their June 1985 study entitled: Improving Acquisition Management in the Coast Guard. The June 1985 LMI study was followed by a September 1985 In-House Coast Guard Acquisition Process Study (CG In-Hse), which reached similar conclusions about the Coast Guard's "need to train develop and retain people skilled in the professional aspects of acquisition...." [Ref. 2:p. 3-4]

The Coast Guard initiated these studies with the intent of identifying where and how management of procurement, particularly acquisition of major systems, could be improved. The focus of this study is on factors that will enhance the procurement career management program for Contracting Series Personnel (GS-1102 and military equivalent) in the Coast Guard; with particular emphasis on formal training and education.

B. OBJECTIVES

The primary objective of this research is to investigate the formal training and education requirements and opportunities for Coast Guard Contracting Series Personnel; and to present a proposed plan of action to satisfy those needs. A second objective of this study is to highlight areas within the overall Procurement Career Management System in which

further investigation is required. The current status of professional development and organizational practices will be examined within the Coast Guard and other Government agencies. This will be done in order to establish the context within which these efforts must be conducted. It is hoped that as a result of this study, that the Coast Guard will seize the opportunity and take definite steps towards increasing the professionalism of its procurement workforce.

C. RESEARCH QUESTIONS

In pursuit of the above stated objectives, the following research question was addressed:

- How can the professionalism of the Coast Guard Contracting Series Workforce be improved?

In support of the primary research question supplementary questions were addressed:

1. Why should we be concerned with professionalism and the formal training and education of procurement personnel?

2. What are the skills and knowledge factors required of Coast Guard Contracting Series Personnel and how do they compare to other Federal Government Contracting Series Personnel.

3. What are training and education requirements required by law, statute or regulation and how do they compare to other Federal Government Contracting Series Personnel?

4. What is the composition (i.e., background) of the Coast Guard Contracting Series workforce?

5. What is the current status of Coast Guard Contracting Series training efforts?

6. What are other Federal agencies doing in the area of Career Management? What does commercial industry do in the training of their contracting personnel?

7. What sources of training exist and what are the costs-benefits to each?

8. How can we implement and track required training and career development efforts?

9. What other factors, if any, influence the successful career development and training accomplishment of Contracting Series Personnel?

D. RESEARCH METHODOLOGY

   1. General Approach

   This effort is a thesis which employs multi-methods, both qualitative and quantitative.

      a. Qualitative Methods

      The qualitative methods employed during this research included a comprehensive literature review, informal interviews and personal observation of procurement personnel in the workplace. The literature review began with a literature search compiled from multiple sources, including Defense Logistics Studies Information Exchange (DLSIE); the Defense Technical Information Center (DTIC); the Federal Legal Information Through Electronics (FLITE); the General Services Administration; current Coast Guard, Department of Transportation and other Federal agency regulations and supplementary directives, previous theses, and review of current publications and periodicals relevant to the field of Federal procurement.

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Consultant studies of Coast Guard and other Federal agency acquisition processes were reviewed along with numerous Coast Guard Acquisition Management Reviews (AMR's), Department of Transportation Office of Inspector General (DOT IG) reports and Government Accounting Office (GAO) Audits of Coast Guard and other Federal agency acquisition programs.

Over 70 interviews were conducted internally and externally using a policy of non-attribution where necessary. Top management, supervisory and journeyman personnel in the procurement and education fields, were interviewed within the Coast Guard, DOT and other Federal agencies. The geographic distribution of individuals interviewed was widely disbursed across the Nation. Executive level and contracting personnel in industry were interviewed as well. Members of the Defense Contract Acquisition Career Management Board (DC/ACMB) were consulted and the procedings of the 25/26 March 1987 DC/ACMB meeting were taped and reviewed. Personnel from the Defense Systems Management College (DSMC), the Federal Acquisition Institute (FAI), the Defense Manpower and Data Center (DMDC) were interviewed and the researcher attended the DOT Procurement Conference 27-28 April 1987. Several field activities and headquarters activities of Federal government agencies were visited as well.

b. Quantitative Approach

The two primary techniques utilized were a survey issued to Coast Guard procurement personnel and structured interviews of numerous personnel. A survey was mailed to nineteen Coast Guard procurement offices for distribution to the contracting series personnel. These procurement offices represent a good cross section of the Coast Guard

contracting population (by job, locations, nature of buying, etc.). One hundred and thirty surveys were issued with 89 returned as of 01 June 1987. This sample represents approximately between one-quarter and one-third of the Coast Guard contracting workforce. The actual number of contracting personnel is in a state of flux due to some substantial reorganization efforts that are ongoing in the Coast Guard, however this number is approximated at 270 - 300 (total GS 1102s and military equivalent). The nature of this reorganization is discussed in the next chapter. Appendix A contains a list of the activities that received surveys, along with a discussion and presentation of the data.

Structured interviews were conducted similar to the informal interviews described above. Appendix B contains a list of the questions posed to each interviewed. The responses to these questions were not coded or otherwise compiled individually, but were compiled in summary form for a determination of general trends.

2. Sample Analysis, Variables and Data Collection

A cross-section of personnel in Federal Government procurement were interviewed as described above. The primary technique employed was telephonic interviews due to cost limitations. The Coast Guard survey respondents covered a wide range of activities, from construction to supplies and services and major systems contracting.

The variables selected in the interviews and surveys were chosen for several reasons. The primary thrust was to gain an appreciation for what makes a good procurement career management program. Variables were also selected to permit comparability between organizations and to validate information from other sources.

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The data from the survey was complied on a personal computer and frequency distributions were conducted using a commercial software "Microstat". The period of data collection for this study was approximately seven (Ø7) months, although not continuous due to other commitments of the researcher.

E. SCOPE OF THE STUDY

This study is confined to a specific subset of Federal Procurement personnel in general and Coast Guard Procurement personnel in particular, namely those personnel in the Contracting Series GS-11Ø2 (and military equivalent) positions with primary emphasis on personnel in the role of Contracting Officer.

F. LIMITATIONS

A significant limitation on the data gathering effort and analysis of the composition of the Coast Guard procurement workforce was encountered because of the disestablishment of many contracting billets at the District Offices and the establishment of the regional Maintenance and Logistics Centers (MLCs). This significant change is ongoing as of this writing. The process of organizational change has disrupted a significant portion of the Coast Guard's Contracting Series Personnel. It has been mutually agreed upon with Coast Guard Headquarters Procurement Policy branch (G-FPM) that any survey data coming from the District Offices may be suspect for this reason.

Aside from the above, this study has also suffered from the common problem of limited resources in terms of time and funding (materials "promised" the researcher haven't arrived, etc.). Nonetheless it is felt

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that significant interface with personnel that set policy and who direct and execute the acquisition function within the Coast Guard and other organizations has been accomplished to ensure that the most pressing problems were addressed.

G. ASSUMPTIONS

Throughout this report, it is assumed that the reader is familiar with the Federal acquisition process. General familiarization with the Coast Guard is assumed, however a brief history of current Coast Guard procurement changes is provided. A familiarization with basic Coast Guard terminology and with basic contracting and acquisition terminology is assumed.

H. DEFINITIONS

1. GS-1102 Contracting Series Personnel

The U.S. Office of Personnel Management Handbook on Position Classification Standards for the Contracting Series (GS-1102) (TS-71 December 1983) establishes the following positions for this series:

- Contract Specialist

- Contract Negotiator

- Contract Administrator

- Contract Termination Specialist

- Contract Price/Cost Analyst

- Procurement Analyst

The handbook continues to state that:

No titles other that those identified above are authorized in these standards. However, the approved titles do not affect agency use of

organizational titles for internal administration, program management or similar purposes. [Ref. 3:p. 20]

For example, frequently used titles which denote delegated authority to sign contracts include:

- Contracting Officer

- Procuring Contracting Officer (PCO)

- Administrative Contracting Officer (ACO)

- Termination Contracting Officer (TCO)

- Corporate Administrative Contracting Officer (CACO)

2. **Acquisition and Procurement**

Depending on the source these terms are near synonymous. LMI defines acquisition:

Acquisition begins at the point where agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract. [Ref. 1:p. B-1]

FAI defines procurement:

The term procurement includes all stages of the acquisition process, beginning with the process for determining a need for property and services through to disposition of such property and services. [Ref 4:p. 145]

Sound pretty close? One source resolves it through the following:

Occupational designators such as acquisition, procurement, contracting and purchasing provide little assistance to us in defining the parameters of a career field. In fact, they seldom convey the same image even to those most intimately involved with them. Because of this prevailing confusion over the lack of an agreed upon definition of these terms, substituting one occupational designator for another (i.e., procurement for acquisition, or vice versa) in the organizational titles of an agency, will probably not change the essential character of the function's performed by the individuals involved in the process. [Ref 5]

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The two terms are used somewhat interchangeably in this study and the reader need not get hung up over some intricate distinction that various personnel have been known to make.

3. Training and Education

The use of the term "training" is generally the effort to familiarize an individual with the basic laws, rules, regulations and policies associated with the contracting environment. The distinction is made at this point with the concept of "education". Education is the action or process of gaining knowledge and development resulting from, typically. a more formal process than in training. The key distinction is that education is considered more personal to the individual and reflective of his/her career direction while training is more task or vocation specific.

4. Contract Specialist (GS-1102) and Contracting Officer

The terms "Government Procurement Personnel", "Contacting Specialist" and "Contracting Officer" are not synonymous. Federal procurement personnel are not all designated Contracting Officers. Assigning a Contract Specialist a Certificate of Appointment, ...· designating him/her as a Contracting Officer, empowers that individual sign procurement actions that legally obligate the Government. Even though a Contract Specialist may not be designated as a Contracting Officer, he or she still performs many of the same duties as a designated Contracting Officer. Often times both are responsible for the same duties, however only the Contracting Officer is authorized to legally bind the Government. Both must still demonstrate the same high degree of knowledge, proficiency and professionalism and the mandated training requirements are virtually equivalent.

I. ORGANIZATION

This thesis is organized in the following manner: Chapter I is, of course, the introduction. In Chapter II the reader is given a very brief and general background of what the Coast Guard is and does, along with the recent procurement and reorganization initiatives the Coast Guard has undertaken.

Chapter III investigates the initiatives behind professionalism of the procurement workforce. Chapter IV addresses the baseline skills and knowledge factors established in regulation and statute. Also addressed is the body of knowledge and competencies developed by various Government, industry, academic and professional organizations.

Chapter V presents the training and education resources available and analyzes how training and education requirements are achieved in various Federal agencies and private industry. Chapter VI is a discussion of Procurement Career Management as a system.

In Chapter VII we examine the Coast Guard contracting workforce. Chapter VIII is an analysis of the data, including an evaluation of the Coast Guard procurement training effort and a prioritization of the contracting personnel training needs.

Chapter IX contains the conclusions and recommendations, including a plan of action. This is followed by several appendices including a list of interviewees, a bibliography, selected statistics and other pertinent references that the research has uncovered.

Prior to moving on to Chapter II (a background on the Coast Guard) a general framework of an overall career management system is presented. This framework is established to provide the reader with the necessary

perspective within which to place the various aspects of career management that are addressed throughout the study.

> Training, education and classification are only three facets of a total career management system. Others include workforce planning and analysis, recruitment and selection, intern and trainee programs, performance appraisal, incentive awards, certification and contracting officer qualifications. All of these functions, combined and integrated as part of a systematic procurement career management program, are essential to building and maintaining a fully professional procurement workforce. [Ref 6:p 18]

Task Group 6 (an interagency Task Group established pursuant to EO 12352) has investigated the development of procurement career management programs and established nine major components in the total process comprising procurement career management. The major elements which make up a procurement career management program are presented along with a very brief description of each.

1. **Procurement Career Management System**

This involves establishing the general principals and generic tools for developing career programs that cover and integrate the full range of personnel management functions.

2. **Contracting Officer Selection and Appointment Systems**

Section 1.603 of the FAR requires Federal agencies to establish systems for "...the selection, appointment, and termination of appointment of Contracting Officers".

3. **Recruitment and Selection Programs**

The ability to attract and retain highly qualified personnel to meet the agency's current and future staffing needs is a basic objective of career management.

4. **Procurement Career Development Programs**

The main thrust of Procurement Career Development Programs is the attainment of knowledge, skills and abilities through a combination of formal training, education and on the job training. It is this aspect which is the primary focus of this study.

5. **Procurement Intern Programs**

Intern programs are designed to provide a source of highly qualified candidates for upper level procurement positions.

6. **Performance Appraisal and Awards**

The Civil Service Reform Act of 1978 specified, among other things, that agencies establish job related performance standards, communicate these standards to employees, periodically evaluate employee performance, and use the results of performance appraisal as a basis for rewarding employees.

7. **Classification and Position Management**

Section 3 of EO 12352 requires the Office of Personnel Management (OPM) to ensure that personnel policies and classification standards meet the needs of executive agencies for a professional procurement workforce.

8. **Small Purchase Personnel Career Management**

Small purchasing is often defined as procurement actions, not in excess of $25,000, which utilize simplified purchasing procedures. In addition, simplified purchasing procedures may include orders issued under existing contracts, regardless of dollar value (i.e., delivery orders under Federal Supply Schedules, etc.). Although many GS-1102 contracting personnel are occasionally involved in processing such actions, the majority are handled by the GS-1105 Purchasing Series.

9. Procurement Research

The objective of this element is to identify sources for completed research, list alternatives for conducting further research, and provide recommendations for both improving the use of current data and coordinating new research efforts.

The next chapter will provide the reader with a very brief background on the Coast Guard, along with a quick review of some recent organizational changes that have recently taken place, are ongoing at this time, or that have been identified for future action.

II. THE U.S. COAST GUARD: "AN ARMED SERVICE AND MORE" [Ref. 7]

A. COAST GUARD ORGANIZATION

Before attempting to assess the procurement career management program in the Coast Guard a brief exploration of what the Coast Guard is and what it does must first be made.

On August 4, 1790, the Secretary of the Treasury, Alexander Hamilton, requested and obtained from Congress the authority to establish a seagoing military force. This service, receiving no statutory designation, was primarily called the "Revenue-Cutter Service" which then subsequently became the nucleus of the United States Coast Guard. On January 28, 1915, President Woodrow Wilson signed into law the Act to create the U.S. Coast Guard. The Coast Guard had been described even then, as "a service which was multifunctional almost to an extreme" when it came into being in 1915. [Ref. 8:p. 15] On April 1, 1967, the Coast Guard was one of five agencies joined together to form the new Department of Transportation (DOT) (ending 173 years of association with the Treasury Department). Today's Coast Guard is a branch of the Armed Forces of the United States and is a unit of the Department of Transportation in peacetime. In time of war or when the President directs, the Coast Guard operates as part of the Navy.

The major functions and activities performed by the Coast Guard include search and rescue, maritime law enforcement, marine environmental protection, aids to navigation, and military readiness. As part of these diverse functions and activities, the Coast Guard's duties involve saving life and property in and over the high seas; enforcing laws in the

suppression of smuggling and illicit drug trafficking; conducting domestic and international fisheries patrols; administering and enforcing safety standards for U.S. commercial vessels; establishing and maintaining aids to navigation such as lighthouses, beacons, and fog signals; and maintaining a state of readiness to function as a specialized service in time of war. The Senior Coast Guard Officer, the Commandant, directs the policy, legislation and administration of the service and is responsible to the Secretary of Transportation. When the Coast Guard operates under the Navy, the Commandant is then responsible to the Secretary of the Navy.

The Coast Guard procures ships, aircraft, shore facilities, information systems, support equipment and services to carry out this myriad of duties.

During the past 30 years the Coast Guard's basic structure has included 12 autonomous districts aggregated into two areas, a Headquarters and a number of specialized commands. This basic composition has changed little over the years, with district commanders providing oversite for subordinate commands who deliver the services to the public. Engineering and other support has been provided by a combination of generic unit level resources, district staff, contractors and in some cases, by Headquarters. Area commanders schedule major operating units and provide area-wide coordination. Area commanders also play an important new role as commanders of their respective Maritime Defense Zones (MDZs). A significant function that aligns the Coast Guard even more with the Navy.

While no two Districts are identical, all provide basically the same kinds of support for subordinate units. Much of this organization that

has just been described has changed within the past year or is changing even now as this paper is written. The effect of these changes on the Coast Guard's ability to prosecute its acquisition and purchasing functions is significant.

B. RECENT ORGANIZATIONAL CHANGES

1. Formation of the Office of Acquisition.

The first recent major organizational change that affected Coast Guard procurement involved the establishment of a Headquarters element entitled the Office of Acquisition.

> For the past several years the Coast Guard has been working to make the acquisition process more effective and more responsive to overall service needs: to insure that all aspects of increasingly complex processes and systems are integrated from the outset through to delivery; and to insure that items, services and systems acquired are neither more costly and sophisticated than absolutely necessary, nor less so. I have concluded that we need a concentrated organizational focus on Coast Guard acquisition...from procurement to major systems acquisition.... [Ref. 9]

With this statement, on 31 January 1986, Admiral James S. Gracey, the (then) Commandant, created the new Office of Acquisition to provide that needed "focus". The new Office of Acquisition contrasts sharply with the Coast Guard's prior acquisition structure where individual program offices were responsible for acquiring major systems simultaneously with directing the day-to-day program operations.

2. Establishing the Maintenance and Logistics Centers

The second major organizational change originated in August 1986 when the present Commandant, Admiral Paul Yost, "concluded that some consolidation of the common support functions performed by the Districts on an area wide basis might save some resources" [Ref. 10]. A project team was formed to develop an implementation plan to realign District

support and management functions. In February 1987 the report:
"Realignment of Management and Support Functions of the Coast Guard" was
published. The plan provides for regional Maintenance and Logistics
Commands (MLCs) in New York, NY and Alameda, CA to serve the Atlantic and
Pacific areas respectively. Among other functions, these commands will
provide the contracting service for the Districts in their area.
The structure of the procurement function within the Maintenance and
Logistics Centers is described in the Realignment Report as follows:

Formal contracting will be regionalized along with the technical
support functions. Where practicable in a workload sense, procurement
personnel will be integrated organizationally with the engineering
personnel they support. [Ref. 11:p. 1]

As a side note; it is interesting to note that in 1915 when the
Coast Guard was formally chartered, the multimission responsibilities of
the Coast Guard were reflected in an organization very similar to that
which the Coast Guard is now advancing toward.

The Headquarters organization was divided functionally into
Operations, Personnel, Engineering, Construction, Ordinance (readiness),
Supply (acquisition) and Law. District commanders were given general
operational and administrative authority within their Districts.
Logistic support of cutters had been established in facilities at Arundel
Cove, MD and San Francisco, CA (sound like the MLCs?) to support the east
and west coasts respectively.

C. COAST GUARD BUDGET AUTHORITY

Along with a glimpse of the Coast Guard's organization, it is
instructional to present a view of the magnitude of dollars available for
Coast Guard expenditure.

From fiscal year 1980 to fiscal year 1984, the Coast Guard's total budget authority increased about $1.7 billion to approximately $2.8 billion, or roughly 65%. During the same period, the Coast Guard's procurement authority nearly doubled from about $0.8 billion to about $1.5 billion. Along with the absolute dollar increase over that period was an increase in the percentage of procurement dollars relative to the overall budget authority, from approximately 47% of the overall budget authority in FY1980, to 56% in FY1982 and dropping slightly to about 54% in FY1984. Since 1984 the amounts have declined slightly both in absolute dollars and relative percentage. The FY1986 Coast Guard Budget Authority was approximately $2.5 billion with about 44% or $1.1 billion available for procurement. For FY1988 the budget request is approximately $2.6 billion, with about 40% or $1.04 billion available for procurement (Figure 2.1).

Prior to establishment of the MLCs, the Coast Guard made most of its purchases through four organizational groups:

1. **The Headquarters Office of Acquisition**--The Headquarters Office of Acquisition is responsible for contracting new acquisition and modernization of major systems including ships and aircraft.

2. **The Twelve District Offices**--The District Offices are (prior to the MLCs) responsible for contracting for repair and rehabilitation of ships, aircraft and Coast Guard Stations.

3. **Three Inventory Control Points (ICP)**--The major three major ICPs located at Curtis Bay, MD; Elizabeth City, NC; and Brooklyn, NY,

USCG BUDGET AUTHORITY (Billions of Dollars)

Balance of CG
Budget
Authority

GAO' Estimate
of CG
Procurement
Authority

FY 1980	FY 1982	FY 1984	FY 1986	FY 1988
0.9	1.1	1.3	1.4	1.55
0.8	1.4	1.5	1.1	1.05

3
2.5
2
1.5
1
0.5
0
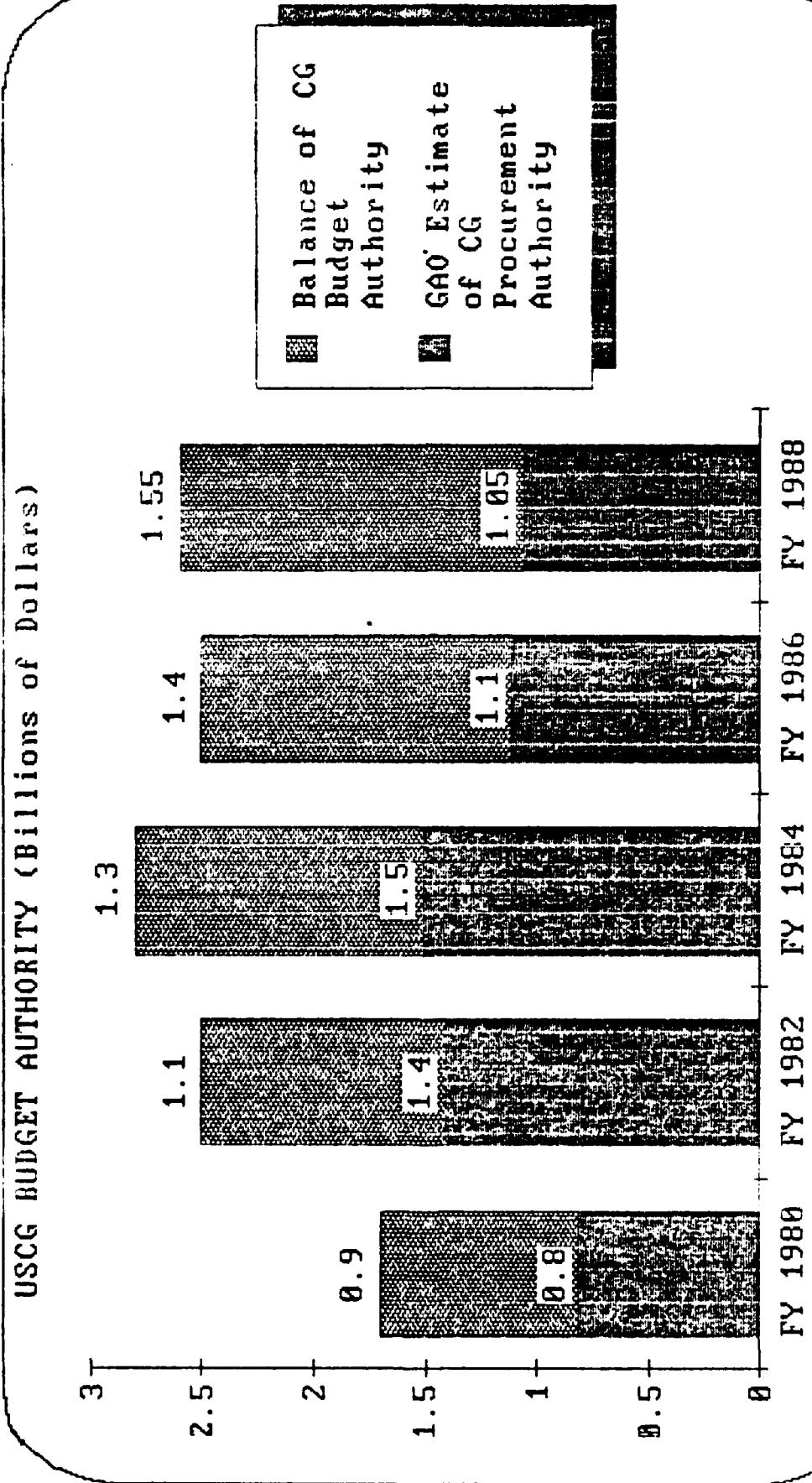
Figure 2.1   United States Coast Guard Budget Authority

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are responsible for centrally managing ship parts, aviation parts, and electronics and general supplies, respectively, and

4. **Two Facilities Design and Construction Centers (FD&CC)**--The FD&CCs located in Seattle, WA and Norfolk, VA, are responsible for all major shore construction projects funded through the Coast Guard's acquisition, construction, and improvement fund.

GAO has estimated that these four groups accounted for roughly 92% of the contract and small purchase obligations in FY1984. Figure 2.2 presents GAO's estimate. The basic distribution will vary somewhat from year to year depending on what new program starts occur, however the general pattern is relatively representative through FY1986. With the MLCs coming online in the final quarter of FY1987 an estimate of the expected average future distribution is projected in Figure 2.3. This figure is derived by manipulating the previous distribution through a separation of the Contracting and Small Purchase dollars (which the Districts will retain) as well as accounting for certain peculiar contracting authority that will not go to the MLCs as detailed in the Realignment Report.

D. RECENT HISTORY OF PROCUREMENT CAREER DEVELOPMENT IN THE COAST GUARD

In 1985, the LMI study reported the status of the Coast Guard's procurement career development efforts as follows:

> Despite an ever increasing need for greater expertise on the part of contract specialists, FCP has no established formal training or career development program to make sure they have the skills, knowledge and attributes they need to make crucial acquisition decisions. [Ref. 1:p. 2-19]

It is instructive to note some of the history of the Coast Guard procurement career development efforts prior to this determination by

Pre-MLC Procurement Obligations
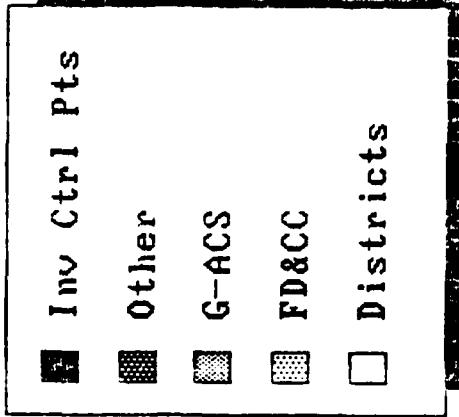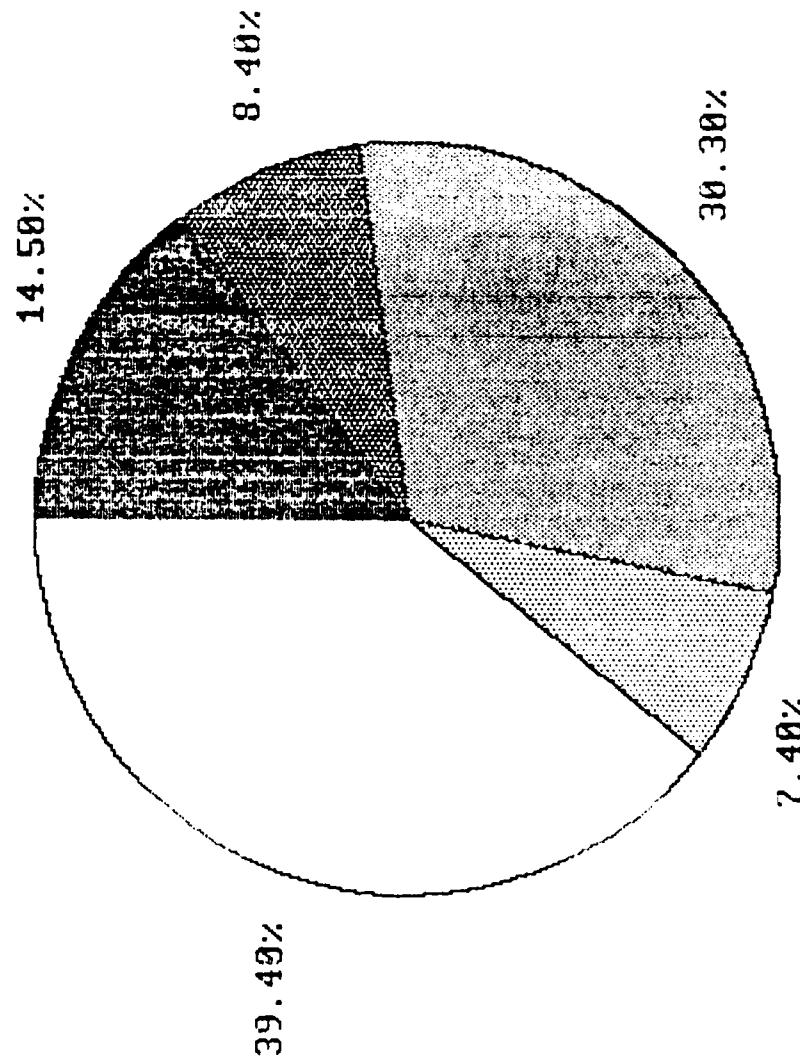
Figure 2.2   Pre-MLC Procurement Obligations

Post-MLC Procurement Obligations

Inv Ctrl Pts
Other
MLCs
Districts
FD&CCs
G-ACS

14.50%

8.40%

30.50%

30.30%

8.90%

7.40%
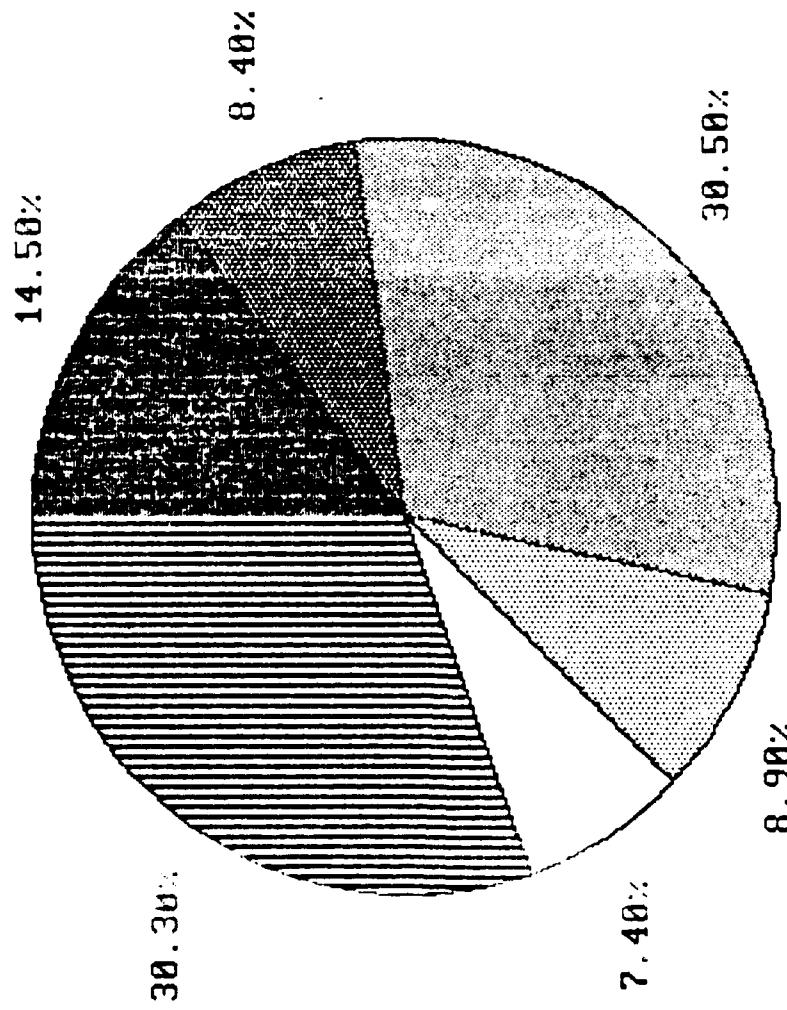
Figure 2.3   Post-MLC Procurement Obligations

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LMI. In 1982-83 the Coast Guard had proposed some reforms in its acquisition management process. Included in these proposals was the initiation of a procurement training program and the development of a procurement deskguide. However, in 1984-85 several significant changes in the procurement regulations occurred which had a significant impact on the previous years' efforts. The changes to the regulations included the Competition in Contracting Act (CICA), the FAR, additional management review levels, extended appeals processes and other miscellaneous contracting rules. The net effect of this avalanche of regulation was to effectively invalidate much (if not all) of the improvements initiated in 1982-83. Whenever changes of this magnitude are imposed it takes several years of case law, GAO and Board of Contract Appeals rulings to establish just what they mean and how they are to be implemented (this is of course an ongoing process).

Nineteen hundred eighty six (1986) started with the major reorganization of the Headquarters acquisition function (as already noted) which was followed in late 1986 with the regional maintenance and logistics realignment study. Early 1987 has been dominated by the MLC establishment, which is soon to be followed by a major Headquarters reorganization study. Clearly then, Coast Guard procurement as an organization, has not been without significant disruption for several years.

A total of 43 separate recommendations were forwarded by the LMI and Coast Guard In-Hse acquisition studies. The Coast Guard has made significant progress in addressing the intent of these recommendations, with many of them already resolved. This analysis is not an indictment of Coast Guard management, but rather is intended as a frank assessment of where we stand and where we need to go.

E. SUMMARY

The variety of the Coast Guard's missions requires it to acquire increasingly complex and expensive equipment. The required support for this equipment and the crews who man it has increased dramatically as well. The recommendations of the two prior reports not withstanding; Executive Order 12352 and several statutes have significantly enlarged the responsibility of the organization's contracting workforce. Mr. James Burnley, Deputy Secretary for the Department of Transportation, opened the recent DOT Procurement conference (Feb 27/28 1987) by stating that

> ...as procurement becomes more complex and important in carrying out agency missions, professionalism of the procurement workforce becomes increasingly critical. There is a clear understanding that better performance is achieved through better training. [Ref 11]

The next chapter will address the current concerns over the professionalism of the procurement workforce.

III. THE CALL TO PROFESSIONALIZE

A. INTRODUCTION

Concern over the effectiveness of the Federal procurement workforce has intensified in recent years. Representative of this concern within the Federal government is the statement by Mr. Robert Bedell. Administrator for the Office of Federal Procurement Policy:

> There is critical need for highly educated, competent and professional contract managers who can operate effectively in today's complex acquisition environment. [Ref. 12]

The recently completed Packard Commission reiterated this concern:

> Our study convinces us that lasting progress in the performance of the acquisition system demands dramatic improvements in the professionalism and management of acquisition personnel at all levels.... [Ref. 13:p. 66]

This concern is not limited to those solely within the Federal government.

> The public is concerned about the integrity of the processes through which the Federal procurement expenditure is made. The critical component in the processes concerns the competency of the application of the knowledge and skills possessed by personnel working in the procurement offices. [Ref. 14]

An even more critical view expressed by one author is that:

> ...regardless of the motivation behind bringing these problems to the public's attention, the result has been that many people feel that...contracting officials are to stupid or untrustworthy to do their job. [Ref. 15:p. 2]

This chapter will present a review of recent Federal procurement reform initiatives which address the professionalization of the procurement workforce. A discussion concerning the benefits of a professional procurement workforce and the debate over the classification

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of the GS-1102 Contracting Series as "professional" by the Office of Personnel Management will also be included.

B. ACQUISITION AS A PROFESSION

Determining whether a discipline achieves professional status should begin with a definition of a profession. The concept of contracting as a profession has critical impact on the training and education criteria. Since formal education is a key requirement for entry into any of the "accepted" professions, defining the concept is both an appropriate and necessary starting point. This is not an easy task because there are numerous definitions of a profession, none of which are definitive and most of which list professional characteristics.

> Today's practical attitude towards professionalism has led to the indiscriminate use of the term 'professional' by many occupational groups. Practitioners who become expert in their disciplines many times automatically consider themselves to be members of a 'profession'. [Ref 16:p. 2]

This desire in itself has created a defensive attitude against evolving disciplines and creation of "soft" professions or occupational professions.

Advocates for ensuring the sanctity of professional status tend to invoke the "classical" characteristics as the measurement for evaluating potential disciplines. At the 1983 Air Force Systems Command Contracting Officer Conference, Mr. Jim Williams, Deputy Assistant Secretary of the Air Force, for Acquisition Management, identified five classical characteristics of a profession:

1. A defined body of specialized knowledge.
2. Undergraduate and graduate intellectual training.
3. Relationship to a professional organization with set standards, tests of competency and certification procedures.
4. A high degree of autonomy and responsibility.

5. A code of ethics enforced by members of a profession.

Evaluated on the basis of these criteria, the government contracting occupation appears to have the basic framework of a profession. Effective contracting practice requires a range of generalized and specialized knowledge. The Federal Acquisition Regulations (FAR) present the opportunity to refine the specialized knowledge requirements. Accepted ethical and social norms regulate practitioner conduct. Ethics in government contracting has become a highly visible objective the past few years. An interesting perspective on the ethics issue was related by Admiral Peter DeMayo USN, Head of NAVAIR 02. Admiral DeMayo stated that one always hears about ethics - usually from an academic viewpoint; however he never really realized just how extensive the ethics problem is in Government procurement - but that it certainly is a very real issue.

Several professional organizations exist which fulfill the professional organization requirement (as well as promoting a code of ethics). Numerous degree programs at various colleges and universities offer educational opportunities. And perhaps most importantly, although the contracting officer may have a network of people to assist him, he alone remains responsible for the contractual actions the government is entered into (autonomy). While few would expect contracting to be completely comparable with the older established professions (e.g., doctors, lawyers) it is nonetheless valid to discuss the occupation in the professional context, particularly with a view towards the attendant training and education requirements that support it as such.

C. OFFICE OF PERSONNEL MANAGEMENT VIEW

The Office of Personnel Management (OPM) does not completely agree with the above assessment. In fact the primary source of disagreement is in the establishment of minimum educational requirements. OPM classifies positions as clerical, administrative, or professional for the purpose of satisfying the provisions of 5 USC 3308. That section prohibits the establishment of minimal educational requirements for an examination for the competitive service except where OPM decides "that the duties of a scientific, technical or professional position cannot be performed by an individual who does not have a prescribed minimum education" [Ref. 17:p. 146]. The Office of Personnel Management and some experts in the field believe that specific educational requirements are not needed to enter or to be promoted within the procurement field and therefore the 1102 series is classified as administrative (vs. professional). The Office of Personnel Management defines a professional position as one in which successful performance requires a base of knowledge that may not be obtained through on-the-job training, but instead, may only be acquired through a course of study in a recognized discipline. Upward mobility and "career bridging" (1105 to 1102) programs seem to fly in the face of classifying 1102's as professional, with many 1102's progressing upward through the clerical ranks into the contracting field.

D. ALTERNATIVE VIEWS

On the other hand, many agencies and other experts believe the 1102 series should be reclassified as professional. They argue, as much of the rhetoric that we have seen does, that the contracting occupation is a complex one involving a major portion of the Federal budget and that

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...it requires various knowledge areas and skills, including (1) cost and price analysis, (2) knowledge of contract law and procurement legislation, (3) mathematical abilities, (4) forecasting abilities, and (5) knowledge of the economic climate. [Ref. 16:p. 8]

They contend that many of these basic knowledge areas and skills should be obtained through college education. The key point to this argument is that, as the series is now classified, there are legal impediments to establishing educational (as distinct from training) requirements. This point is significant in the next chapter which compares the base in regulation with the practical knowledge and skill requirements. The remainder of this chapter will focus on the legal and quasi-legal mandates to "professionalize" the procurement workforce.

E. PROCUREMENT INITIATIVES TO PROFESSIONALIZE THE WORKFORCE

A review of procurement initiatives reveals that enhancing the quality of the procurement workforce has been an issue for well over 20 years. In 1965 the "War Office" published the "DOD-Wide Civilian Career Program for Procurement". Procurement career management has been addressed continually since then. On 13 August 1970, the Comptroller General provided a report to Congress entitled "Action Required to Improve the DOD Career Program for Procurement Personnel". It should be noted at this point that the majority of initiatives in procurement research originate with the DOD simply because that is where the overwhelming majority of the Federal dollars are spent and where the majority of the Government procurement personnel are. The report recommended; among other things, an improved career management and training program for procurement personnel, including action to raise the status and enhance the image of the procurement career field. The Coast

Guard has experienced similar procurement personnel concerns as those in DOD and the other Government agencies. The CG In-Hse acquisition process study reported that "there must be a growth in the professionalism of personnel--both military and civilian--who are primarily involved in procurement activities" [Ref. 2:p. 3-5].

The Commission on Government Procurement (COGP), which completed work in December 1972, was formed to conduct a comprehensive investigation of the Federal government procurement process. One of the outcomes of the COGP was the creation of the Office of Federal Procurement Policy and (eventually) the Federal Acquisition Institute (FAI). On 30 August 1974 FAI was chartered to assist in career development and training, and in improving the professional standing of the Federal procurement workforce.

Indicative of the congressional interest in the professional enhancement of procurement personnel is a letter from Senators Danforth and Chiles to OPM, dated 9 November 1981, which stated that:

> We are firmly convinced that the ability of the procurement system to function properly is dependent on the training and skill of the people who buy goods on behalf of the Government...it becomes increasingly important that we are able to depend on the professionalism and expertise of the Government's procurement personnel. [Ref 18]

The cornerstone or modern day baseline for mandating professionalism in the procurement workforce is Executive Order 12352 dated 17 March 1982. This Executive Order tasked each executive agency and department to "establish career management programs, covering the full range of personnel management functions, that will result in a highly qualified, well managed professional procurement workforce". [Ref. 19]

Even the existence of a directive from the President did not seem to have had any immediate effect. The Report of the President's Private

Sector Survey on Cost Control (the Grace Commission), 15 September 1983,

proposed more training for procurement personnel, noting that

> Current procedures do not adequately recognize that the procurement of
> billions of dollars of supplies and services each year is a job for
> highly skilled professional. [Ref. 20:p. 134]

The recently completed Presidents Blue Ribbon Commission on Defense

Management, June 1986, (the Packard Commission) reported as one of its

nine major recommendations in a formula for action: the need to enhance

the quality of Acquisition Personnel. The Packard Commission recommended

that:

> Federal regulations should establish business-related education and
> experience criteria for civilian contracting personnel. which will
> provide a basis for the professionalization of their career paths.
> [Ref. 13:p. 68]

And finally, the Acquisition Enhancement Program Report II (ACE-II)

dated December 1986, stated that:

> The study group recognized from the outset that improving the training
> base was but one step--albeit a significant step--toward the objective
> of enhancing the professionalism of the acquisition workforce.
> [Ref. 21:p. 2]

It has become readily obvious that there is no lack of legislative or

executive encouragement for us to train our procurement personnel to

become competent professionals. However, it should be as equally obvious

that the above discussions on professionalism and the call to

professionalize is easily idle rhetoric if not viewed in proper

perspective.

F. PROFESSIONALISM - THE REAL REASONS

> The procurement process is a support function - not an end in itself.
> However, its importance within the Federal establishment cannot be
> minimized because the organizations and personnel engaged in performing
> the procurement process represent the means by which Federal objectives
> and missions are accomplished. To the extent that these organizations

and personnel operate at less than optimum levels, the effectiveness of the process and the realization of national objectives suffer. [Ref. 15:p. 9]

Put in other words, we are concerned about procurement career management and training because the job we do as purchasers directly affects our ability to save lives, guard the coast, provide reliable aids to navigation, etc. The caliber of the workforce is the single most important factor in the effective accomplishment of the organization mission. Without qualified, dedicated people to operate and maintain our ships, planes and other units, improvements in force structure and organization are hollow at best. The same is true of the acquisition workforce. The Coast Guard, as much as any other Federal agency or successful organization, has to have qualified, capable decision makers to develop and procure the necessary equipment and supplies.

In more quantitative terms, workforce quality directly affects:

- prices paid to contractors,
- costs associated with system operation and maintenance,
- costs resulting from claims, protests and litigation,
- quality of the goods and services acquired,
- cost of delays in obtaining needed goods and services,
- cost of terminating contracts,
- cost to detect and correct mistakes,
- cost of waste, fraud and abuse,
- the number of procurement personnel required,
- the cost to industry of doing business with the government,
- the loss of budgeted dollars for other service improvements or other Government uses.

In support of our missions, the American people have a right to expect that Federal contracting personnel will have the talent, training, authority and accountability to spend their dollars wisely. Wise procurement decisions can save millions...even hundreds of millions of dollars. Poor decisions can cost just as much. With about $1 billion in procurement authority annually at stake in the Coast Guard, a savings of

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only 1% in the costs of Coast Guard procurement would save millions of dollars.

A career development program, of which a viable training and education program is an integral part, offers managers some techniques and tools to assist them in effective and efficient mission accomplishment. This is not a one-sided view held by Government, commercial industry is also seeking quality procurement personnel.

A recent survey of Chief Executive Officers determined the following three major qualities they wanted from their purchasing personnel:

1. More strategic planning and intelligence gathering, so that purchasing can become a greater corporate resource.
2. More in-field decision making, to streamline the decision-making process, and
3. More professional development through training programs and exposure to other operations, with the ultimate goal of building well-rounded business people. [Ref. 22:p. 76]

G. SUMMARY

Why professionalize?...in an atmosphere of increasing public and congressional scrutiny of the Federal procurement process it comes as no surprise that professionalization of the workforce is being "mandated". The "Proposal for a Uniform Federal Procurement System" suggests we professionalize because: "the procurement process is so complex that users of products and services often do not get what they need when they need it". [Ref. 23:p. 37]

Quite simply: The acquisition workforce provides the foundation of all our acquisition improvement efforts. We cannot hope to solve the myriad of acquisition problems simply by establishing initiatives or enacting legislation. The fact is this: we can improve the acquisition process only in direct relationship to the availability and application, across-the-board, of a sufficient and well-qualified and professional workforce. [Ref. 24:p. 9]

The next chapter will examine the baseline in regulation as well as some current developments in the establishment of the competencies required of contracting personnel.

A. INTRODUCTION

Identification of the training and education needs is a basic step in the implementation of a career development program. Much has been said and written concerning the skills and knowledge required of Federal contracting personnel.

> The procurement function today is a much broader, more complicated process than ever before and involves a number of skills. Many of these skills are completely unrelated to the others. For example, a Price Analyst prices out the elements which make up the total item cost. His technical input requirements as to labor, material, engineering, etc., must be provided by the industrial specialists, quality assurance specialists, and engineers. The procurement personnel use the information provided by these skills plus other inputs and their own expertise to determine contractual arrangements, prices, delivery schedules, quality requirements, etc. [Ref. 25:p. 21]

The preceding quote sounds like something from the Packard Commission, however it comes from the 1970 report to the Congress: "Action to Improve the DOD Career Program for Procurement Personnel". The words above are as true today as they were seventeen years ago (if not more so). The foresight and accuracy of that report is commendable. A further example of the precision inherent in that report is reflected in the following statement regarding the skills required for today's (1970) procurement function:

> Today's procurement function involves many varieties of materials and services--from the simplest commercial types which require relatively simple procurement procedures to weapons systems which require the most complex contractual arrangements to ensure their timeliness, quality, realistic pricing, and support. Also the decision making process underlying procurement actions now extends far back into the developmental stage. These decisions require expert judgment; they have a significant effect on the lifetime costs of the major weapons or equipment to be procured that often total hundreds of millions, or even billions, of dollars. Because of this diversity; a wide range of personnel with appropriate skills, competencies, and talents are needed

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to staff the various segments of the procurement function. [Ref. 25:p. 13]

Certain aspects of training and education for the contracting function are common to all Federal agencies and to all DOD services while other training is peculiar to the service or agency. This is due to the specialized nature of the procurements tasked to the different agencies and why the different agencies exist in the first place. Government procurement is more than a purchasing function; it is affected by a wide range of Government needs influenced by numerous social, political and economic activities.

The intent of this chapter is not to reinvent the wheel in this regard, but rather, to present the broad skills and knowledge required of contract managers as it has been determined by law and regulation, industry, academic and professional associations. The most current initiatives in the acquisition field concerning the skills and knowledge required for a competent, professional workforce will be presented.

B. THE SKILLS AND KNOWLEDGE REQUIRED IN REGULATION

In general there are two sources of Government regulation or policy which provide broad requirements for contracting personnel. The first are the Office of Personnel Management (OPM) classification and qualification standards which define the target population, and the second is the Federal Acquisition Regulation (FAR) and its supplementary regulations with which all those defined by the OPM standards must comply in their execution of the Federal Government procurement process.

1. Office of Personnel Management.

The OPM publishes the Office of Personnel Management (OPM) Handbook TS-71; Position Classification Standard for Contracting Series GS-1102

and OPM Handbook X-118; Qualification Standards for Positions Under the General Schedule. Classification standards determine the title and grade of procurement positions. Qualification standards determine the skills, knowledge and other criteria that persons must meet in order to be eligible for selection and promotion. The development of .new classification and qualification standards for contracting and procurement specialists was completed in December 1983 after seven years of review. The requirements contained in these standards constitute the core knowledge and skill in procurement required for all positions in this series. Positions in this series are concerned with:

(1) Soliciting, evaluating, negotiating, and awarding contracts with commercial organizations, educational institutions, non-profit organizations, and state, local or foreign governments for furnishing products, services, construction or research and development to the Federal Government; (2) administering contracts by assuring compliance with the terms and conditions of contracts, including resolution of problems concerning the obligations of the parties; (3) terminating contracts by analyzing, negotiating, and settling claims and proposals; (4) analyzing and evaluating cost or price proposals and accounting systems data; (5) planning, establishing, or reviewing contracts, programs, policies, or procedures; (6) formulating and administering policies and procedures to insure achievement of Federal socioeconomic goals, such as those affecting small business, labor surplus areas, and disadvantaged business firms; (7) developing acquisition strategies and directing or managing procurements; (8) providing staff advisory services in one or more of the specializations in this occupation. [Ref. 3:p. 1]

The diversity of skills and knowledge required of the GS-1102 Series becomes readily apparent. Each handbook identifies knowledge and skill factors keyed to grade levels in the classification standard for the occupation. These criteria apply across the board to all Federal government contracting personnel--regardless of agency.

2. The Federal Acquisition Regulation

The second general source of procurement knowledge and skill requirements is the FAR. The FAR is the primary regulation with which

all Federal Executive Agencies must comply in their procurement of equipment, supplies and services with appropriated funds. The FAR (which became effective 1 April 1984) together with agency supplemental regulations, such as the Transportation Acquisition Regulation (TAR) and the Coast Guard Acquisition Procedures (CGAP), replaces the previously issued individual regulations that had been developed by the separate agencies. The intent of the FAR is to be a simplified, Government-wide acquisition regulation containing common policies, procedures, contract clauses, etc. for the implementation and execution of Federal procurement laws.

One could successfully argue that the individual "supplemental" regulations issued by each agency have undermined the "uniformity" of the FAR. The FAR expressly precludes agency regulations which unnecessarily repeat, paraphrase or otherwise restate the FAR. It limits any supplemental regulations to "only those necessary" to implement the FAR policies and procedures within an agency, or to meet the unique needs of the agency which are not covered in the FAR. In any event, when you talk government procurement...you talk the FAR; it is the baseline regulation which establishes the responsibilities of government contracting officers. Therefore any discussion of training and education requirements for government contracting personnel must necessarily include the FAR.

FAR Section 1.603-2 cites generalized selection criteria for Contracting Officers which requires consideration of the candidates "experience, training, education, business accumen, judgment, character, and reputation". Examples of selection criteria include:

(a) Experience in Government contracting and administration, commercial purchasing, or "related fields";

(b) Education or special training in business administration, law, accounting, engineering or "related fields";

(c) Knowledge of acquisition policies and procedures including this and other applicable regulations;

(d) Specialized knowledge in the particular assigned field of contracting; and

(e) Satisfactory completion of acquisition training courses. [Ref. 26:p. 16018]

C. THE PRACTICAL ROLE OF THE CONTRACTING OFFICER

In order to perform his responsibilities, the FAR states that the contracting officer "should be allowed wide latitude to exercise business judgment" [Ref. 26:p. 16018]. While a knowledge of the FAR and other regulations is required, the system calls for more informed judgments across a wide spectrum of disciplines. What sort of "business judgement" is required?

A fitting definition that has been applied to industrial procurement managers lends itself equally well to Government Contracting personnel. It states that an individual must be:

...enough of a lawyer to understand the legal implications of contract clauses, enough of an accountant to understand the arithmetic, enough of an engineer to know if the contract fits the sought after hardware, enough of a negotiator-diplomat to communicate his contract proposal's intent to the other side of the buyer-seller relationship, enough of a business manager to understand whether or not the planned contract is in his organizations best interest... [Ref. 27:p. 68]

The practical role of contracting personnel in the procurement process is now necessary to examine. In general, the Coast Guard employs what is known as the "cradle-to-grave" approach to most of its contracting functions. The Coast Guard policy (post-office of Acquisition and pre-MLCs) has been that the contracting function be centralized in one office. In large operations, particularly the

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Department of Defense, different personnel are often designated to handle respectively the award, administration, termination and settlement of contracts. Also, in large organizations the contracting officer at the purchasing office is referred to as the Procuring Contracting Officer (PCO), while a contracting officer at.the contract administration office is referred to as an Administrative Contracting Officer (ACO). Additionally, a contracting officer responsible for the settlement of terminated contracts may be referred to as the Termination Contracting Officer (TCO). This is a degree of specialization that the Coast Guard generally cannot afford. In a very small minority of offices, the award and administrative functions may be separated, however this is usually not the rule. For this reason, the Coast Guard contracting officer is involved in all facets of procurement and must be the "jack-of-all-trades".

D. INDUSTRY AND PROFESSIONAL ASSOCIATION VIEWS

This next section will address the industry and professional associations' view of the required skills or "body of knowledge" as it is sometimes known.

> If contract managers are to fulfill the needs of the contracting environment and satisfy public concern for competence, a broad-based education in business and management is necessary. [Ref. 28:p. 2]

Contracting personnel cannot function merely as clerks safely checking off procedures. While each managerial position involves unique requirements, certain general management skills are applicable to Government procurement. Top executives expect more than financial management from contract administrators in today's environment. They expect purchasing and management professionals. To this end, one group

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of executives in a Special Chief Executive Report concluded that industry emphasis should be directed at more professional development through training programs. This emphasis even included attendance of government courses when possible.

But what are the specific skills and knowledge required? There are several professional associations which sponsor programs in acquisition contracting, that have defined this "body of knowledge". Among the associations sponsoring programs in acquisition contracting are:

- American Production and Inventory Control Society (APICS)
- American Society for Quality Control (ASQC)
- American Society for Traffic and Transportation (ASTT)
- National Association of Purchasing Management (NAPM)
- National Contract Management Association (NCMA)
- National Institute of Governmental Purchasing (NIGP)
- National Property Management Association (NPMA)
- Society of Logistics Engineers (SLE)

NAPM and NCMA sponsor the most sophisticated and best certification programs in procurement. Our concern with these requirements is more than just a passing interest; COMDT INST M4200.19A--the Coast Guard Acquisition Procedures--permits that the passing of an examination which is given by a nationally recognized professional contract organization may be substituted for Level II (< $100,000) and Level III (> $100,000) warrant training requirements. The NCMA in particular has placed major emphasis on the contract management career field. Table 4.1 presents the criteria for certification by the NCMA along with the requirements of the FAR for Contracting Officers.

The NCMA developed body of knowledge requires a range of skills and broad knowledge in the areas of:

1. Business management, particularly materials and operations management, industrial marketing, financial management and related accounting.
2. The economics of materials and operations management.

3. Cost and price analysis and negotiation techniques.
4. Legal and regulatory aspects of procurement and contracting.
5. Managerial planning, decision making, communications, and control.
6. Procurement and contracting policy and procedures.
7. Management information systems, and information and data analysis.

TABLE 4.1
KNOWLEDGE REQUIRED IN NCMA CPCM

I. EXPERIENCE (inclusive of related fields)

FAR	NCMA
a. Govt contract & admin	a. Two years contracting
- or -	- or -
b. Commercial purchasing	b. procuring
	- or -
	c. purchasing

II. TRAINING/EDUCATION (inclusive of related fields)

FAR	NCMA
a. Education and/or special training in:	
(1) Business admin	(1) Production mgmnt
- or -	- and -
(2) Law	(2) Legal aspects
- or -	- and -
(3) Accounting	(3) Financial mgmnt
- or -	- and -
(4) Engineering	(4) Logistics mgmnt
	- and -
	(5) Bachelor degree
b. Acquisition policies & procedures:	
(1) General knowledge	(1) General knowledge

[Ref. 29:p. 23]

The NCMA has detailed 69 modules that make up the NCMA Education and Training Program in support of the professional body of knowledge. Appendix C is the NCMA Education and Training Program structure.

The Packard Commission states that there are some 394 different regulatory requirements in the FAR. Another source identifies "more than 4,000 legislative provisions (which) directly affect or impinge upon the

procurement process." [Ref. 2:p. 4-2] Figure 4.1 is illustrative of the policy fragmentation in Federal procurement that contracting personnel must reconcile.

Perhaps the most peculiar requirement is a thorough understanding of Government contract law, procurement statutes, regulations, decisions and directives. Knowledge of patent rights and policy; the claims, disputes and appeals procedures; protest policy and procedures; data rights; contract audit policy; the role of agencies such as GAO, DCAA, SBA and DOL and the Contracting Officer's legal authority are all necessary to function properly and effectively.

Contract managers must also possess a knowledge of product trends and business methods used by industries with which they interact. A major portion of procurement involves pricing, sourcing, and negotiation. Further, knowledge is required of sources of supply; terminology of items; kinds and types of contracts; data processing concepts and their application to production, inventory and quality control.

The successful contracting officer must coordinate a multitude of inputs from other organizational activities such as legal, engineering, accounting and finance, etc. In order to intelligently interact with these diverse activities a fundamental knowledge of each discipline is required. This is usually satisfied by a general understanding of the terms, concepts and theories peculiar to each occupation. A model of the demands the environment places on contract managers is presented in Figure 4.2.

Current Procurement Policy Fragmentation
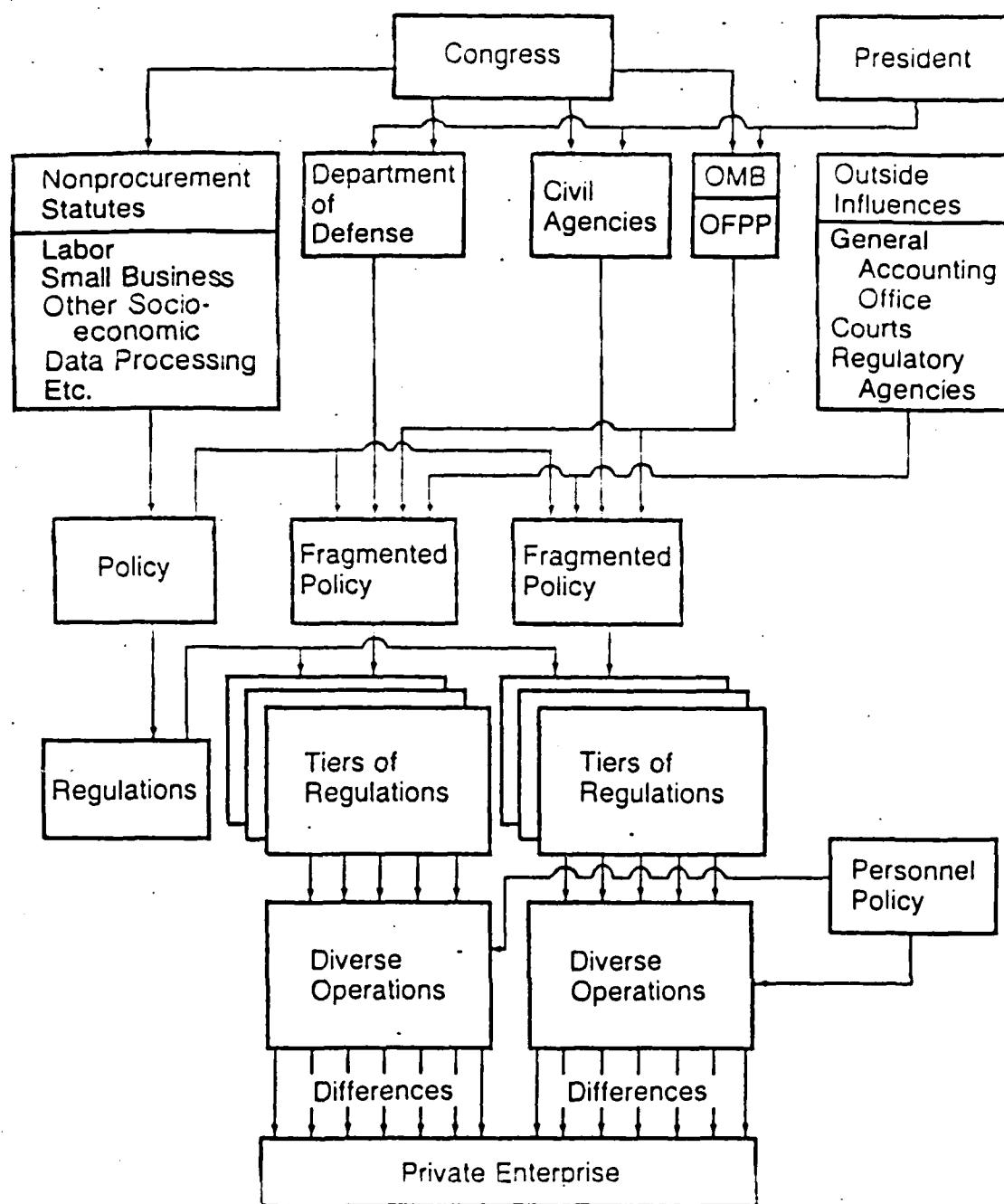
Figure 4.1 Current Procurement Policy Fragmentation (Ref. 23:p. 7)

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Citizens/Taxpayers
Elected Officials
Boards/Authorities/Commissions
Enabling Legislation/Charter
                            |
Contractors            Integrity      Using Agencies/
   Prices              Ethics         Customers
   Profits             Service           Quality
   Product Variety     Taxes             Delivery
   Quality                               Price
   Small/Minority                        Service
     Business                            New Products
   Market Impact
   Partner
   Competitor
                       CONTRACT
Personnel              MANAGER  ——— Professional
   Employee Relations               Associations
   Productivity                        Education
   Cost & Quality Controls             Training
   Materials                           Perf Stds
   Facilities                          Ethics
   Unions                              Integrity
   Salaries and Wages
   Employee Security
                                     Government
   Community        Communications     Subsidizer
     Leadership     Media              Regulator
     Civil Projects   Image           Antitrust
     Education        Advertising      Market
     Charities        Critic           R & D
     Environment      Information       Competitor
     Safety                            Taxes
     Inflation                         Partner
                                       Courts
                                     Legislation
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Figure 4.2   Demand on Contract Managers [Ref. 28:p. 4]

E.   REQUIREMENTS OF AGENCY DIRECTIVES

Certain skills and knowledge requirements are also a factor of the types of goods and services that Coast Guard buys. In general, one can state with some validity, that the Coast Guard's requirements are very similar to the Navy's; ships, planes, shore facilities and the attendant spares and support services. Coast Guard procurement supervisors and other agency contracting activity supervisors were asked how they establish the training needs of their personnel; about 95% responded that the basic requirements were provided for in an instruction or directive. In the Coast Guard that instruction is COMDT INST M4200.19A. In DOD it is Department of Defense Directive (DODD) 5000.48, in the FAA it is FAA Dir 3410.16 for example. In other words, practically speaking the minimum training and education requirements are embodied in these various directives.

DODD 5000.48 is a very recent instruction in DOD (15 DEC 86) and its use/implementation is meeting a lot of questions and/or resistance from many sectors. None of the supervisors and many of the policy personnel interviewed is quite sure how this instruction is to be used. Primarily because of the positive education requirement and increased mandatory training courses required. This instruction is a direct output from the Acquisition Enhancement Program Report I (ACE-I). The impact of this instruction is discussed in the next chapter. DODD 5000.48 and some recommended changes are presented in Appendix D.

A comparison of several of the Federal agency requirements is offered in Table 4.2. It is important to compare these requirements, because "the selected and approved courses provide the basic skills and information needed for employees' current positions and preparation for

advancement in the career field" [Ref 30], and because the Coast Guard attempts to utilize many of the same training resources as these other agencies.

It is not surprising that the Coast Guard requirements are essentially the same as many of the other Federal agency requirements

TABLE 4.2

SUMMARY OF EXPERIENCE, EDUCATION, AND TRAINING REQUIREMENTS

Agency/Instruction   Criteria

Category	Level	Experience(1)	Education	Training
USCG	I	1 YR	None	80 HRS(2)
M4200.19A	II	2 YRS	None	300 HRS
	III	3 YRS	None	160 HRS
DOD	I	None	BA/BS(3)	5 CSES
5000.48	II	2 YRS	BA/BS	2-5 CSES(4)
	III	4 YRS	BA/BS	2-3 CSES
DOD	I	3 YRS	None	3 CSES
1430.10-M-1	II	5 YRS	None	2-3 CSES(4)
	III	10 YRS	None	2 CSES
DOD	I	None	BA/BS	1 CSE (5)
ACE-II	II	2 YRS	BA/BS	1 CSE
	III	4 YRS	BA/BS	None
FAA	I	1 YR	None	120 HRS
3410.16	II	3 YRS	None	200 HRS
	III	5 YRS	None	200 HRS
DOT	I	1 YR	None	80 HRS
Proposed	II	3 YRS	None	160 HRS
	III	5 YRS	None	200 HRS

(1) Based on entry into series at lowest level.
(2) Dependent upon specialty
(3) Not enforceable yet.
(4) DOD mandates required courses v. hours, CG and FAA
    mandate hours but then specify only certain courses that
    will satisfy those hours.
(5) ACE-II recommends only one 6-8 week course for the entry
    and intermediate levels and none for advanced. This
    author does not agree with that recommendation.

(particularly DOD). Within each service, the individual contracting activity requirements will vary depending on the primary types of goods and services each activity buys (construction vs. spares buying for example). These instructions merely represent the starting point or base for the formal training and education effort. It should be recognized that many of them derive from a common source.

F. COMPETENCIES AND TASK ANALYSIS

The most recent initiatives in procurement training concern the development of "competency-based" instruction. Competency is defined as:

Those observable, measurable behaviors which demonstrate the ability to perform in a manner that enables one to accomplish a job related task to a pre-defined level. [Ref. 31]

The Federal Acquisition Institute (FAI) has recently issued the "Contract Manager's Training Blueprints" which are based on certain compentency/task criteria for each job function. These blueprints include conditions, standards, and criterion tests for task performance and underlying knowledge and skills required. The Acquisition Career Enhancement II study (ACE-II) reports that:

Competency-based instruction is effective and efficient. It strives to impart the specific skills and knowledge needed for individuals to do their jobs professionally and immediately upon completion of training. [Ref. 21:p.34]

The tasks to be taught in a competency-based model curriculum are proposed for each acquisition job function.

The FAI has been working on the Training Blueprints for over seven (7) years. Over 20,000 Federal employees were surveyed to collect data on the tasks performed by personnel in contract management and related fields. Twenty-four Federal agencies were involved with a 62.5% return

rate (14,082 surveys). This return rate was considered quite good relative to the success rates experienced by other organizations. Among the respondents were: 8,134 Contract and Procurement Specialists, 1,578 Purchasing Agents, and 1,043 Industrial Specialists. In addition, questions were completed by 134 Engineers (GS-801), 147 Industrial Property Managers (GS-1103), 44 Quality Assurance Specialists (GS-1900) and 1,409 Uniformed (Military) Personnel.

The FAI then worked with OPM to select and refine tasks for training. Small groups of subject matter experts from different agencies reviewed data from the occupational analysis and rated tasks performed by different functional specializations on various scales (i.e., learning difficulty and consequences of inadequate performance). The Federal Acquisition Institute used the groups to:

1. Define each career path (i.e. specialization);
2. Rate the training priority of tasks performed by more than 40% of the employees who comprise the career path;
3. Determine whether any task performed by less than 40% of the career paths' present incumbents should nonetheless be covered in training;
4. Update the task inventory to reflect changes in policy; and
5. Develop model "Curriculum Design Outlines" for the highest priority pricing tasks.

An interagency Advisory Committee was established in early 1986 to develop a complete set of blueprints for training in the competencies and tasks identified in the curriculum design outlines. This included a full-time working group of procurement and instructional design specialists along with 16 "consultants" from the Air Force, Army, DLA, Navy, Interior, Agriculture, HHS, VA, Energy, Treasury and NASA (no DOT).

Once all the training blueprints are approved by the Advisory Committee, they will be organized into instructional modules. The

overall description of each module will identify:

1. Competencies and tasks covered in the module,
2. The related blueprints,
3. Recommended duration, in classroom and job site hours, of the module, and
4. Alternative methods of training delivery.

These initiatives have immediate significant impact on the focus of Federal Government Procurement Training. The Assistant Secretary of Defense (Acquisition and Logistics), Mr. Robert Costello, has tasked all the training centers with developing competency based curricula. A copy of this memorandum is enclosed as Appendix E. The March 1987 meeting of the Defense Contracting and Acquisition Career Management Board (DC/ACMB) reported that Army Logistics Management Center (ALMC) was re-evaluating its entire curriculum with regard to competency based training. The Board reported that for many of the courses taught at ALMC the original charter was no longer valid or was indeterminable. The ACE-II report states that present courses generally are not organized to teach tasks, but to provide overviews. The study group concluded that more task-oriented training could significantly increase training effectiveness, particularly at the entry and intermediate levels. The competencies and training blueprints are meant to help trainers accomplish that goal.

There are 51 competencies and 158 tasks that Federal Contract Specialists ought to master before or shortly after promotion to the full performance level. The training blueprints cover only the core skills. The FAI is presently developing blueprints for specialized areas such as construction, ADPE and major systems.

The significance to the Coast Guard training effort is immediate as well. The training blueprints are written for all persons who design and

deliver procurement training in any form. This includes staff instructors at Federal procurement training facilities, college and university instructors of academic level procurement courses and procurement training contractors. The blueprints also can be used directly by first-line supervisors in planning on-the-job training. The application to the Coast Guard procurement training effort will be addressed in the chapter providing "A Plan of Action".

G. SUMMARY

How does all of this fit in with the previous discussion on academic prerequisites and the body of knowledge? The NCMA has developed a matrix which shows the relationship of the NCMA Body of Knowledge C the FAI contract management competencies. Appendix F provides the contract management competencies and tasks and the NCMA matrix for comparison. The training blueprints are simply too voluminous to reproduce for this thesis.

The significance of examining the "body of knowledge" is twofold: (1) to permit comparability of requirements across agency and industry boundaries and (2) as a standard to evaluate the training base against to ensure that what is established as minimums is infact being addressed by the training resources. Having provided a discussion on the required skills/knowledge/tasks/competencies the next chapter will take a look at the resources available to satisfy those required skills and now various organizations are employing them.

V. SOURCES AND USES OF TRAINING

A. INTRODUCTION

This chapter has two major objectives: (1) to present the various types of resources that exist to satisfy the procurement training and education requirements, and (2) to investigate how the various Government, industry and professional organizations use the identified training sources for career development.

There are six generally accepted classifications of training and education methodologies which are utilized in pursuit of the improvement of procurement knowledge and skills. These include:

1. Government Agency Training
2. Training provided by Educational Institutions
3. Commercially Available Training
4. Training provided by Professional Organizations
5. On-the-Job Training
6. Self-Development Training

A description of each of the methodologies will now be addressed; it should be noted that this is a general classification scheme and that an individual specific training resource may potentially be in more than one category.

B. GOVERNMENT AGENCY TRAINING

1. Resident "School-House" Training

Government Agency Training is primarily thought of as the resident-school house type of instruction presented by such places as the Defense Systems Management College (DSMC), the Army Logistics Management Center (ALMC) or the Air Force Institute of Technology (AFIT). There are actually twelve Federal Government Schools providing instruction in the

area of procurement. Of these twelve schools, nine are run by an agency or service of the Department of Defense, one by the General Services Administration, one by the Department of Agriculture and one by the Federal Aviation Administration.   Each of these schools has a broader mission involving the teaching of courses other than procurement.

Many of these Federal procurement training institutions are well operated and present courses at a level equal to those conducted at many colleges and universities. Mr. Michael Miller of the Federal Acquisition Institute FAI) noted that the   strength of this resource is an "understanding of the student and the functions they are performing". [Ref. 32] This author would temper that appraisal somewhat by noting that, although we can say the FAR is the FAR and therefore Government procurement should be somewhat standard, three factors influence the applicability or maximum usefulness of this training for Coast Guard procurement personnel.

a. Quota Availability

The first is the consistent availability of quotas for Coast Guard personnel. In general, the only way that an agency or service receives a quota to a training opportunity sponsored by another Government agency is on a space available basis. As anyone who has flown "space-A" can tell you...it may be cheaper but it sure can be tough to plan around. In particular, the ACE-II report describes the magnitude of the training backlog confronting DOD is "formidable". The ACE-II study examined indepth the shortage of training availabilities in DOD and concluded that:

Mandatory training requirements, applicable through 1986, measured against training accomplished reflect a current training backlog which would require approximately 668,000 student man-days to overcome. This

backlog increases to approximately 2,000,000 student man-days when the more stringent training requirements recommended by the ACE-I (which DODD 5000.48 implements) study become effective in 1987. [Ref. 21:p. 19]

Table 1 to Appendix G reveals that the current capacity of the DOD training base is insufficient and out of balance with proposed requirements. Nine courses would be unable to keep up with the annual requirement. Twenty courses have insufficient capacity when the backlog figures are factored in. Table 2 to Appendix G shows that the disparity between requirement and capacity will not cure itself over time. Fourteen courses would be unable to satisfy the backlog in three years or less. Of these fourteen, the immediate training requirement exceeds current capacity by more than 200% in all but one course. ACE-II then presented the DOD training picture with the backlog spread over 2-5 years. Table 3 to Appendix G shows that training loads become a little more manageable when the backlog is distributed over several years. A three year time period was selected by ACE-II for planning purposes. This choice was to generate more realistic and attainable training loads. For eleven training base courses, training capacity already exceeds the required capacity when a three-year time interval is used. Several options were forwarded by ACE-II to achieve balance:

1. Grant waivers where appropriate.
2. Redistribute the training base to courses which show an excess capacity.
3. Identify existing courses outside the training base that may be equivalent.
4. Increase current capacity by increasing class size.
5. Rely on existing correspondence mode to satisfy required capacity.
6. Offer additional classes per year.
7. Develop additional correspondence modes where prudent.
8. Develop exportable training courses.
9. Use additional contract courses to augment the training base.

Table 4 to Appendix G provides an initial forecast on which options are recommended to achieve balance for each training base course. The message however is clear; <u>DOD</u> <u>courses</u> <u>are</u> <u>presently</u> <u>hard</u> <u>to</u> <u>get</u> <u>quotas</u> <u>to</u> <u>and</u> <u>its</u> <u>going</u> <u>to</u> <u>get</u> <u>even</u> <u>tougher</u>. A letter from the Dean of the School of Acquisition Management at ALMC to the Coast Guard (attached as Appendix H) confirms this with the following comments:

> DOD activities have priority...MDACC (Basic) and MDACC (Advanced) are in great demand...The ALMC FY 1988 schedule has been established and ALMC resources are fully committed to supporting DOD activities...ALMC is unable to directly support your request for onsite courses....
> [Ref. 33]

Similar quota availability problems exist at AFIT and the other resident procurement training schools.

b. Applicability of Language

Second, each school has a sponsoring agency or service (none of which is the Coast Guard) and the sponsors tend to be somewhat parochial in nature. Therefore, the emphasis or bias in the program of instruction tends to be towards the needs of the host agency and along the lines of that particular agency's FAR supplement. One instructor informed this author that his direction often is based on whatever the DOD Inspector General (IG) determines as "hot" at the moment. The likelyhood of this emphasis matching up with the Coast Guard's needs is hit-or-miss. Organizational bias is also evident in the language a course is couched in. Naturally the "host" agency will teach the instruction along the lines of their agency FAR supplement.

c. Level of Magnitude

Third, a concern exists that with some courses, particularly the DOD ones, is that the level or magnitude of procurement dollars the courses address are on a much larger level than that which the Coast

Guard contracts manager normally encounters. This point was made in several interviews with Coast Guard procurement supervisors and at the DOT Procurement conference. The most often cited examples are the DOD Cost and Price analysis course and the Cost Accounting Workshop--although in general they are considered very good courses, many felt that the focus is not accurate for the Coast Guard or some of the other DOT Mode's smaller procurements (e.g. time spent on learning curve could be better used).

d. Course Curriculum

Some of the general (i.e., non-Coast Guard specific) difficulties with these schools are the original curriculum composition, currency of material and certainty of scheduled course offerings. Most current procurement training courses were adopted, i.e., selected from already developed instructional outlines. Few of the courses were planned to achieve a set of learning objectives based on a survey of knowledge and skills needed to fulfill procurement position requirements. In many instances courses were selected from general "Instruction Outlines" and arbitrarily assigned to a service school on a functional alignment basis. The ACE-II report addressed this very issue of course content in the mandatory acquisition courses. As noted in the previous chapter, there is a movement towards "competency-based" instruction in the Federal procurement world (led by DOD in general and ALMC and FAI in particular) The ACE-II study reported that many current training programs increase general knowledge in a career field, but do not necessarily transfer skills for improved performance of specific tasks The ACE-II study group conducted an evaluation of the DOD training base (and therefore the GSA, FAA and Agriculture schools were not examined) in

view of the recently completed acquisition job functions (discussed in the previous chapter). One hundred eighty four acquisition courses taught throughout DOD (including some taught by private contractors for DOD) were reviewed to determine appropriate competency/task content. A model was developed to compare existing courses. It was based on an operational definition of competency from literature and instructional systems design/development philosophies. Course elements such as behavioral objectives and performance measures were compared to elements which would be expected in an "ideal course". The results of the study group indicate that all of the acquisition courses reviewed fell short of the "ideal" for competency based training.

The mismatch of performance measures to the intended learning outcomes was the most apparent flaw in the design and conduct of the courses which did not score well. ALMC has taken the lead on this and is presently reviewing its entire curriculum to revise it into a competency-based format. Included in this review is an examination of the original charter for each course. The Defense Contracting Acquisition Career Management Board (DC/ACMB) reported that for many courses the schools could not identify why they were teaching a particular course. Table 5.1 shows the summary ratings.

An interesting result of the course reviews was the revelation of much duplication amongst or between required courses. An example of unnecessary duplication of course content revealed by the ACE-II group was a comparison of the 1102 contracting competencies and tasks contained in two existing mandatory courses that all entry level contracting personnel are required to attend (by DOD instruction). It was determined that approximately 40% of the tasks taught were contained in both

mandatory courses. The immediate implication is that the avaliable training time (i.e the time away from the job) is not maximized

TABLE 5.1

EVALUATION OF SCHOOLS FOR COMPETENCY BASED TRAINING ADEQUACY

Average Score*	School	Number of Courses
	BASIC	
65.43	Lowery	9
64.20	AFIT	5
43.83	ALMC	4
42.90	AMETA	4
40.70	Brooks	.
30.86	ASN	5
	INTERMEDIATE	
59.47	AFIT	5
48.13	ALMC	3
46.90	AMETA	2
34.60	Lowery	
	ADVANCED	
43.20	ASN	1
42.00	DSMC	1
40.70	AMETA	1
30.90	ALMC	1

*100 is the maximum score. [Ref. 21 p 52]

e. Course Currency

The currency of course material is another problem with the Government Agency Training Schools. Many procurement courses require constant updating simply because this is such a dynamic field the bureaucracy inherent in each of the institutional organizations this requirement to stay current several of the reviewed in the process of this research contained out of date (one GSA course was still using pre-CICA information) The Procurement courses at ALMC reported that "the bureaucracy

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updating our courses to the extent that we are at least three to four months behind" [Ref 5]

Although the author has not attempted to quantify the following there is a strong "feeling" that the GSA training center has been the biggest offender on the currency issue. Sources at FAI and GSA indicate that GSA has or is making a concerted effort to upgrade the quality of training offered. Nonetheless interviews with both SBA and other agency procurement supervisors along with the survey of the Coast Guard 1102 series revealed a strong bias against GSA courses based

a third general problem with the procurement agency training is adherence to published schedules.

• Adherence to published schedules

from 15 to 18 years to approximately 5 to 1. The main reason cited was the loss of retired military who have dropped out due to the Dual Compensation Act, and who now work for the private contractors that offer acquisition training. A recent example of this problem is evident in the Cost Accounting Standards workshop taught at ALMC. Of the first six classes scheduled between October 1986 and March 1987, three were cancelled due to lack of a qualified instructor. A number of these workshops were presented using a GS-1102 who had a pricing background that was reassigned on a full-time basis from the MDACC(adv) faculty. Not only was the individual's experience with the Cost Accounting Standards "extremely limited" but a situation is created where another course is potentially affected as well.

A similar situation existed with the Defense Contracting for Information Resources course. At the March 1987 meeting of the Defense Contracting/Acquisition Career Management Board (DC/ACMB) it was reported that "finding a suitable person to fill this position was particularly difficult" [51]. ALMC is recommending that a private contractor develop the program of instruction for this course. Therefore not only are quotas hard to get but once gotten there is no guarantee the class will be held.

    g. Student Mix

    A final influence on the quality of the instruction of the

        positive influences are that particularly for the intermediate and advanced courses as much can be learned out of class as in through an interaction of procurement careerists. The negative side of this is when course prerequisites are not followed and entry level

personnel, who cannot effectively grasp the material, are assigned. Not only do we lose out on the synergistic effect of many procurement careerists intermingling, but often the level of instruction is adjusted downward and the course does not satisfy the needs of those rightfully attending. All schools report that a more concerted adherence to student prerequisite screening is being emphasized (to the point of sending people home). A second problem that occurs from a lack of control over class composition does not arise from experience level but rather, from the composition of occupational backgrounds attending a particular course. Mr Robert Wasilenski. Director of the Cost Accounting Standards workshop course at ALMC explained this factor as follows:

It can be hit or miss on the composition of each class, however if a class is all DCAA auditors, then that class will be slanted towards their expertise/needs and not applicable to a GS-1102 Contracting Officer who needs it as mandatory training. [Ref. 5]

Its a rarity indeed when Coast Guard personnel make up the bulk of the class at DOD sponsored offerings.

A brief review of the Government Agency Schools reveals that when we can get our people to the DOD schools the resultant training is generally favorable (the same cannot be said for GSA; no feedback was received on the FAA and Agriculture schools), although not without some attendant problems.

Two extensions of the Government Agency schoolhouse Training are (1) the Satellite Education Network and (2) Exportable Government Sponsored Training.

2   Satellite Educational Network

The Satellite Education Network (SEN) program has been operational in one form or another, since January 7, 1985. The SEN is

conducted for ALMC under the auspices of the Army Material Command (AMC)
The system uses two electronic modes to present instruction: (1) the
electronic conference board and live television via satellite. The
classroom day is six hours in length with three hours of electronic
conference board instruction and three hours of live television
instruction. All instructional hours are interactive with two-way voice
communications between ALMC and the participating sites. A facilitator
is at each of the sites to assist in the instruction as necessary. All
of the classes taught via the SEN are parallel to the same courses taught
in the resident (at ALMC) and onsite or exported modes. Twenty eight
sites are now online, with a total of 71 planned in FY88.

A reported strength of the SEN is the cost avoidance of perdiem
and travel attained by locating the receive sites in areas with a large
population of contracting personnel. The locations do not present a
particular advantage to Coast Guard personnel in relation to the
geographical distribution of Coast Guard procurement personnel.

ALMC reports that examination results (between the SEN trained
students and the resident and onsite students) show no significant
difference in the achievement of the student. When this "fact" was
voiced at the March 1987 DC/ACMB, the Defense Logistics Agency (DLA)
representative had some very strong words concerning the proported
effectiveness of the SEN. The DLA representative reported that he had
personally interviewed twenty four persons who had attended the
mode courses and not one person was positive about the training
Comments ranged from: "major challenge was staying awake", "course was
horrible", to "felt cheated" and "worst methodology". Apparently for
many of these students it was their first Government training and it has

soured them on further training opportunities via this mode. The
response from ALMC personnel (after some fast tap-dancing) was that they
realize some changes are needed, particularly in the application of the
SEN to "highly-interactive" courses such as MDACC (adv). The MDACC adv
has been taken off the air due to poor feedback. ALMC is developing the
use of a personal computer with the course and restricting the live
television to no more than three hours per day to enhance the
receptiveness of training via SEN.

The quality of facilitators was another problem addressed. It is
sufficient for this report merely to note that there are problems with
this mode. DLA is considering pulling out (if they haven't already), and
the Air Force does not use the SEN at all. The Coast Guard experience
with this mode is limited but reflects similar dissatisfaction.

As a side note, the SEN is planned to be the only mode through
which ALMC will offer the Defense Small Purchases Course (DSPC).

5 Government Sponsored Exportable/Onsite Training

The other extension of Government Agency training is the
exportable or onsite mode. This type of training involves taking the
various institutionally sponsored courses on the road with either
Government instructors or through the use of private contractor
instructors. When private contractors are used the course is still the
Host Federal Agency's School syllabus and the instructors must meet the
same standards as the government instructors. The use of government instructors and a government accepted course. This particular mode offers good potential for Coast Guard use either through arrangement of a Coast Guard sponsored course or through space available at various offerings. The use of this mode is gaining in popularity for several

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reasons, among them: cost, convenience, and the fill rate on the resident course offerings. Two examples of the use of exportable training can be found in the Navy and at ALMC.

The Navy has recently assigned the training function to Navy Acquisition Management Training Office (NAMTO) at NSC Norfolk with NAVSUP as the "program manager". The particulars of their operation will be addressed in the second part of this chapter on Agency/Organization implementation.

A second example of exportable school house training investigated involves ALMC's efforts to use a private contractor to deliver the MDA adv. This is a new initiative in part to alleviate the backlog requests for MDACC adv in the resident mode. The basic operation of this course is that a firm fixed price contract will be awarded to a contractor for instructional services on an indefinite delivery, indefinite quantity delivery order. ALMC is the one and only ordering activity under the contract (i.e. the clearing house). The course is $15,000 per offering, contractor travel, perdiem and all course materials are included in the firm fixed price. There is a cap on the contract that allows no more than twelve classes per month by the contractor (a quality control measure). In DOD funds are MIPR'd (Military Interdepartmental Purchase Request) from each service to ALMC. When the course is completed the contractor submits his invoice (a modified DD ...

... requested ... classes this way ... maximum of 40 students per offering with the host activity providing classroom, overhead projector, etc. A contracting officer's technical ...

Representative (COTR) is designated by ALMC. all interface with the Contractor is via ALMC.

The COTR is given a brief by ALMC and a package to ensure alignment with ALMC's objectives for the course ALMC designates a test control officer at the host, the contractor does not administer the test. There are 300 questions in ALMC's test bank and the contractor is not informed of what 50-75 questions will make up each test. Examination feedback is provided to the contractor.

In summation of the Government agency training methodology: the mode with the greatest potential for Coast Guard use and effectiveness is the exportable or onsite training, followed by the resident training and the SEN as a measure of last resort.

C   EDUCATIONAL INSTITUTIONS

Training provided by Educational Institutions is likewise a mixed bag The colleges and universities are the best source for satisfying educational requirements in general (i e , broad based business skills and other formal academic programs), after all that is their business Currently there are over 400 institutions offering procurement programs and courses throughout the Nation Most educational institutions schedule night school or employ other methods to tailor academic instruction to working people Colleges and universities represent more than an educational resource through the Accredited Off Campus instruction (AOCI) program they are getting on the bandwagon in the procurement training movement as well

The FAI has been actively pursuing the involvement of colleges and universities in Federal Government procurement training and the

establishment of acquisition programs in continuing education programs in

associate, baccalaureate and graduate degree programs. FAI in

cooperation with an Interagency Academic Program Committee (IAPC) has

established an academic program review to ensure that procurement

education programs and courses meet the DOD and civilian agency entry

level workforce mandatory training requirements which relate to career

and grade advancement. The objectives are to: (1) review and evaluate

academic programs and courses; (2) recommend approved courses for

Government agency use; (3) establish a cooperative relationship between

providers and users of education; (4) communicate new procurement skill

and knowledge requirements to providers; and (5) expand opportunities for

the Federal entry level work force to meet mandatory agency training

requirements through equivalent academic courses.

The FAI has published a Directory of Academic Procurement and Related

Programs and Courses (July 1986). Several institutions have approved

programs or courses that may serve as equivalents for Government training

requirements. The advantages of this resource are that the student is

not lost to the workplace for training and there are no perdiem/travel

costs. Some drawbacks include quality control over the instruction and a

lack of a thorough understanding by those in the academic institution of

the functions performed by contracting personnel. Many colleges and

universities are teaching courses that have similar titles to those

required by COMDT INST M4200 19A, but they are not really teaching

Federal procurement, they are teaching basically contracting from the

private sector viewpoint without addressing the FAR, TAR, etc.

Another concern that is difficult to quantify, is that some persons

interviewed revealed an attitude against satisfying training needs in

this fashion because it is not command sponsored and/or recognized and therefore why work an 8 to 10 hour day then go to class for a couple of hours when the Government (if "they" really want/require the training) will send you to one of the Government schools.

The Navy is addressing these concerns with a pilot program in Norfolk, VA. The Naval Supply Center (NSC) at Norfolk has arranged with a community college to run government procurement courses using Navy materials and the NAMTO exportable instructors (mentione earlier) or procurement officers from the NSC as adjunct faculty. The fi st course had room for 25 and 78 signed up, they therefore added two more sessions. The cost is approximately $125/person and runs two hours twice a week for fifteen weeks. The American Council on Education has accredited the Navy group so that courses receive college credit and are transferable. The Director of Training for Procurement Personnel at the Naval Supply Command (NAVSUP), reported that:

> There are quite a few carrots out there for the folks and most people have done the work by day, school at night routine at one point in their careers, this program is showing great promise. We plan to expand this program once a cadre of instructors is developed. [Ref. 34]

Many of our Coast Guard people do not seem to be aware of these programs based on the numerous survey comments which indicated that personnel would like to know if the colleges and universities offer acceptable procurement programs.

D. COMMERCIALLY AVAILABLE TRAINING

"The rapid growth of and frequent changes found in the procurement process have created a fertile field for commercial institutions specializing in procurement training." [Ref 35:p. v-8] There is no

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shortage of private contractors willing to provide instruction on virtually anything imaginable. These institutions range from permanent facilities to instructors hired to teach specific subjects on a course-by-course basis. Like any other commercial product, there is a wide range of quality available. Many of the commercially available courses cover subjects that are in high demand and can thereby be used to fill voids in the Government Agency training. The advantages to this training are:

- often the quality of instruction is very good,
- the courses are condensed comparative to resident training
- they are held in numerous locations around the country (often in locations in cities with Coast Guard commands
- they are held to published schedules (i.e., facilitates planning)
- they facilitate sending individuals (vs a group requirement)

The major drawback is cost. this is one of the most expensive modes for individual student training. A second drawback is a lack of quality control/service orientation. Although the instruction may be quite good the effectiveness is diminished somewhat when not targeted to the Coast Guard procurement manager. There is also no control over the composition of class. The difference between commercially available training and Government agency training provided by private contractors is getting smaller each day. Many agencies are taking commercially available training and adopting it for their specific agency.

F. TRAINING PROVIDED BY PROFESSIONAL ORGANIZATIONS

Professional associations which is those identified in this chapter represent an excellent source for the latest in procurement information. Most of these organizations conduct seminars, lectures and workshops and hold monthly organized meetings. In addition many of these organizations

work closely with established colleges and universities and/or employ a combination of methods in their educational goals and efforts to promote certification. The associations view certification programs and the training, education and experience requirements in particular, as a major strategy in acquiring professional status.

The certification requirements of the professional associations vary but all require at least a written examination and most have specific education, training and experience requirements. Most of the associations have some flexibility in their training and education requirements, allowing some degree of trade off of experience and education on a limited basis. "A major byproduct of certification examinations is the discipline required of an individual in attaining a organized and comprehensive grasp of the professional body of knowledge [Ref. 16 p. 25] This process promotes a scholarly approach to the field and sets the stage for continuing education and personal research. The importance of certification as a resource was noted in chapter three. Along with the requirements for certification each association has recertification requirements. For example the NAPM requires recertification every five years. To be recertified one must earn at least six points in education and "contributions" categories.

The significance of these associations as a resource is beginning to be recognized as they come into their own. The growing

significant advantage is the mix of professionals in the association membership. These associations provide excellent cross pollination between Government and Industry and within

from agency to agency. The costs to the Government are minimal.

Some disadvantages are availability of local chapters for Coast procurement personnel to participate in. Even if a location has a chapter it may not be feasible to attend the meetings or other functions on a regular basis. For example, in New York City the chapter meetings of the NCMA are a one and a half hour commute from the minimum supply center and in most cases are held in the evening. This puts another burden on the procurement person after the workday.

the workday

many procurement skills are only developed by the performance of work. The content and conduct of OJT is dictated by the needs of the workplace.

The big advantage of OJT is that due to its direct relevance to the work environment, trainees are highly motivated to learn. There are also cost advantages to OJT in that required funds outlay is usually zero. Because resources are always "constrained" and training dollars lead the list when cuts are made. OJT is a crucial ingredient in the development of an effective procurement career management program.

The major disadvantage of OJT is that it is generally very unstructured and inconsistent from activity to activity. OJT is often administered on the squeaky wheel basis which is of course a completely reactive mode. Too often the OJT is directed solely at the newly arrived and or entry level individual rather than being used as a tool for promotion enhancement for persons who have been on the job for a significant amount of time. OJT can be a very slow process, that is largely dependent on a single person at each activity who has the knowledge, time, and ability to transfer that knowledge to others. Some agencies or individual activities have developed lesson plans, tests, and other accompanying instructional materials to enhance their OJT programs.

An observation that the author has witnessed during several tours aboard ships is a gradual demise in the service of the "mentor", i.e., the role the supervisor or mid-level manager played by taking someone under their wing and showing them the ropes. The success of OJT in procurement is similarly affected. A few of the contracting activities examined have designated or hand-picked coaches to be trained as OJT instructors, however it is the exception rather than the rule. The ACE-II report recognized that OJT is the most critical type of training,

as well as the most neglected, and has recommended an active examination/development of procurement OJT within DOD. The Army is conducting an extensive study of procurement OJT at Fort Benning and Fort Gordon.

G. SELF DEVELOPMENT TRAINING

Self development training is the title applied to such mediums as preprogrammed audio and/or video taped instructions, films, texts, articles, correspondence courses, manuals and computerized instruction. This mode of training presents a real mixed bag in terms of availability results, state-of-the-art, etc. All of the mediums mentioned require highly motivated individuals to successfully complete the training objectives. Participants set their own pace with the method, which can be both good and bad. Good in the sense that the trainee can tailor the pace of the instruction to his needs; bad in that there is often no sense of urgency or even encouragement to fully complete a program. These factors must be thoroughly examined when relying on self-development training as an integral part of a career development program. Correspondence courses in particular have a poor completion track record. One example of this is that in FY86, for 3,894 enrollments in the Defense Small Purchases Course (in the correspondence mode) there were 1,228 cancellations or a 71% completion record. Likewise in FY87 (through March 1987) the completion rate is slightly lower at 64%.

1. Audio-visual Aids

The use of audio-visual learning aids is gaining much popularity as a training medium. The Army has promoted the use of videotape through the concept of a "Learning Resource Center" (LRC). The director for

procurement training at the Army Material Command Mr Jerry Wolf stated
"almost every Army installation now has a LRC". a typical instruction
would include a "mix of audio-visual tapes and lesson books. for example
twelve tapes involving forty hours of tape" [Ref 5] The Army is
promoting this concept because as Mr Wolf states "the versatility and
mass media approach is required because you cannot satisfy the
requirement through resident training". [Ref. 5] The LRC program is not
"timed" (i.e. no automatic disenrollment) and therefore is often subject
to stretch-out. For comparative purposes statistics on the DSPC for the
same periods via the correspondence mode above, are presented via the LRC
mode:

	Enrollments	Cancellations	Graduates
FY86	150	17	55
FY87 (thru March 87)	53	22	46

One will immediately notice that the numbers don't seem to add
up. Because there is no formal completion time for a LRC course an
individual is not automatically disenrolled (as they can be in the
correspondence mode) and therefore for many the status is "pending" (a
slightly less than 50% overall completion rate).

A distribution of grades by mode is presented for information
purposes:

AOCI	CORRESPONDENCE	LRC
A = 18%	A = 45%	A = 47%
B = 70%	B = 38%	B = 38%
C = 10%	C = 16%	C = 15%
D = 2%	D = 1%	D = 0%

If grades are a measure of training effectiveness, there is not
too much difference except in the AOCI mode in the split between A and B.

A more valid measure would be to examine and compare how well individuals perform on the job after completion of training via a particular mode

The professional associations utilize individual workbook and video cassette quite a bit in their training and education programs For example, the NCMA's active procurement program library has nineteen workbooks developed for some of the modules in their body of knowledge as well as several videotapes to supplement the workbooks. The drawbacks are that they are available only to members ($25/yr) and tend to be very general in nature. The NCMA is actively developing and updating modules of instruction for their library. Of all the organizations investigated however, the Veterans Administration (VA) is probably the one group that is getting the most out of self-development training. The VA uses teleconferencing, self instruction booklets combined with video tape and computer based instruction (CBI).

2. Computer Based Instruction

CBI is a frequently talked about mode however little quantifiable data exists on the use or effectiveness of this approach. At the recent DOT Procurement Conference very few people had any knowledge of the concept and even less on its use in procurement training. The VA is the only organization that the researcher found that is actively developing CBI as a procurement training mode. Mr. Ken Lawrence, an Education Specialist at the VA, reported that he is actively developing CBI modules for their procurement workforce. The initial reactions are quite favorable. Several advantages exist to CBI, including cost, convince, a self paced mode, immediate feedback provisions and very importantly--it gets procurement people onto ADP equipment in a non-threatening

atmosphere. The headway the VA has made in this area has immediate application to the Coast Guard procurement training effort.

H. SUMMARY OF TRAINING METHODOLOGIES

In summary, there are many different types of resources available for Federal procurement training and education. It is important to note that the overwhelming majority of these methods are not "competency-based" as yet. The impact of this on the effectiveness of training accomplished is only now being understood and evaluated. Figure 5.1 is a representation of the sources of acquisition education/training, all of which need to be considered in the development of a procurement master training and education plan. The second half of this chapter will examine some of the ways that various Government agencies put these resources to work for them.

I. THE USES OF TRAINING RESOURCES

In the process of this research, fourteen agencies or services and industry (not including the Coast Guard) were examined to evaluate training and education resources and their uses. Within these fourteen groups numerous individual activities were investigated, documentation reviewed and interviews conducted of policy personnel and implementing personnel (supervisors and journeymen). The following organizations were reviewed or consulted: Department of Defense, including the Air Force, Army, Navy and DLA; National Aeronautics and Space Administration; Nuclear Regulatory Commission; Department of Energy; Department of Interior; Department of Commerce; Department of Treasury; Federal Aviation Administration; the Veterans Administration; the Environmental

```
University Formal              On-The-Job
Academic Programs             Training
(BA, MBA/MPA)

                           \              /
University Extension         \          /          Company In-House
Programs (Certificate          \      /            Training Classes
or Professional                  \  /
Designation)

                        Contract Manager
                        Education Systems

Government Agency_____/   |   _____     Self-Education
Offered Courses          /     |     \       (Books, Texts)
                        /      |      \      Pre-Programmed
                       /       |       \     Instruction
                                              (Video, CBI)

         Professional                    Instructional
         Organizations                   Private Concerns
         (NCMA, NAPM)                     (Sterling Inst,
         Seminars, Workshops              Procurement
         Lectures                         Associates)
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Figure 5.1   Sources of Acquisition Training & Education   [Ref 28:p. 8]

TABLE 5.2

GS-1102s BY AGENCY*

Air Force	6,249	NASA	744
Army	5,837	HUD	64
Other Defense	4,858	Energy	486
Navy	4,095	Transportation**	529
Agriculture	594	Treasury	177
Veterans Administration	446	Justice	212
GSA	1,137	Education	48
Interior	599	EPA	139
HHS	575	Labor	81
Commerce	126	State	33
Small Business	125	All Other	332

* FY 1986 data from FAI
** Total includes apx 275 Coast Guard GS-1102s

J. DOD PROCUREMENT TRAINING

Analysis of the DOD procurement training effort is made for several reasons including similarities of mission areas (to the Coast Guard), corresponding similarities of goods and services required and simply because that is where the bulk of Federal procurement resources (people, dollars and research) are. The following is a presentation of the DOD procurement training and education effort.

In DOD, the Assistant Secretary of Defense for Procurement has overall responsibility for the procurement training and education effort. This responsibility is delegated to each of the services (the Marines fall under the Navy in this regard) which fragment it even more based on essentially three levels of contracting and acquisition that require

procurement training and education on a continuous basis. The three levels or areas within the services are: (1) installation-level, (2) central-level and (3) systems-level acquisition. Installation-level or base-level contracting is local in nature. It is the acquisition of material or services by an installation for consumption at the base or its satellite activities.

Central-level contracting is the consolidated procurement covering the like requirements of several ordering agencies. This would correspond to the inventory control points in the Coast Guard such as Brooklyn, Baltimore, Elizabeth City, etc. It is the process of acquiring material to meet the combined service-wide requirements.

Systems-level contracting is the acquisition of major systems such as aircraft and ships. The major systems acquisition organizations for the Coast Guard and Navy are located in Washington DC. The Air Force Systems Command centralized but is outside of Washington DC, the Army Systems Commands are distributed across the country. The division of procurement training responsibility on the contracting "level" basis just described is somewhat unique to the Armed Forces v. the civilian agencies in the Federal Government.

The Acquisition Enhancement Program I (ACE-I) report describes the current DOD procurement training arrangement as follows:

> Training and education...of the acquisition workforce...is provided by five service schools, a contractor and the Defense Systems Management College (DSMC). Each service has been designated as an executive agent for the development and conduct of specific DOD-common acquisition courses by the Defense Management Education and Training (DMET) Board. Service schools, other than the executive agent's schools, may conduct courses with DMET Board approval. Mandatory courses conducted by these schools are their presentations of the executive agent's courses. [Ref. 36:p. v-5]

Training courses for DOD acquisition personnel are selected and approved by the Defense Contracting and Acquisition Career Management Board (DC/ACMB), a group representing each of the major DOD components. The DC/ACMB reviews mandatory acquisition course POI's (program of instruction) and approves all equivalencies. The DOD procurement training program is a very bureaucratic (no surprise) assortment of efforts characterized by a lot of "politics and rice bowls". As such it is very difficult to define and/or describe the individual service procurement training programs without getting too far off the track of this thesis; therefore the salient points to each service's use of the procurement training resources will be presented without too much of a nuts and bolts analysis.

To begin, the three-levels of contracting effort mentioned earlier tend to define the procurement training administration within each of the services; even though the mandatory courses for a GS-1102 major systems buyer and a GS-1102 spares buyer are the same (although practically speaking, many of the necessary competencies are not). In the Air Force the procurement training for the Air Force Systems Command (AFSC) is administered by a different group than the program for the Air Force Logistics Command (AFLC). A similar division of administrative responsibility is noted in the Army and Navy as well; the Navy for example administers the procurement training for the NSC's (Naval supply Centers) out of NAVSUP while the Systems Commands administer their own procurement training program.

1. **Air Force**

The Air Force procurement training effort has essentially evolved to where the Air Force Systems Command personnel use the AFIT as their

primary source of procurement training and the ATC at Lowery AFB teaches the installation-level contracting courses. In between the two, the AFLC uses both resources somewhat, however their main formal procurement training resource is through the use of onsite Government Agency training. The AFLC arranges a lot of their training through the Navy Office of Business and Financial Management (previously ONAS) on their Basic Ordering Agreement (BOA) with Business Management Research Associates (BMRA, a private contractor). They have also arranged for 25-30 classes in the onsite mode for the MDACC (adv) through ALMC.

The AFLC has used BMRA for approximately five years and according to a procurement training official at AFLC Headquarters:

> We don't get bad critiques, they know the business. The BMRA faculty is all retired contracting types, they are excellent instructors...better than the service schools. [Ref. 37]

The primary courses AFLC receives from BMRA are MDACC (basic), Cost and Pricing Analysis, Contract Negotiations Workshop and Government Contract Law. A significant ingredient to the viability of this approach is that the Air Force has been able to obtain special defense dollars for the training of the civilians in procurement. The goal at ALC is to have 85% of the procurement workforce at any time with all of the required procurement training for their level. There is doubt that the 85% goal will be attainable between turnover and a concern for the longterm funding. Consistent with the special funds is an organizational emphasis or requirement that when training opportunities are provided, they shall be used. Dr. Jim Edgar, the Director of the Air Force Acquisition Career Management System (ACMS) stated that mandatory use of training opportunities is given as much emphasis as making the quotas available to begin with.

Although not frequent, we have admonished commands for not pursuing training opportunities and disciplined individuals (civilians) for resistance to attend or full participation in the training opportunities made available to them. [Ref. 38]

Another key element to the Air Force procurement training program (and to all of the service's programs) is their intern program. The intern programs will be addressed in a subsequent chapter with a presentation of the overall procurement career management systems. AOCI and correspondence courses are a drop in the bucket for the Air Force's 1102 training effort (and in all of the DOD services). The Air Force does not use the ALMC Satellite Education Network nor do they use GSA. A senior level Air Force official reported that:

GSA courses don't do it, they charge big dollars and they don't deliver. They meet GSA needs. We don't fund any of them anymore. Some of them sound neat but don't produce, the titles are misleading, they tend to cut and paste.

As reported earlier, this view is not uncommon.

2. **Army**

The Army procurement training effort is perhaps the most varied of the services. The Army's first choice for training is ALMC and then AMETA. Secondly is the emphasis on the SEN, with 71 sites planned by the end of FY88. ALMC has ambitious goals for the SEN to become a major, if not the primary mode of delivery for formal procurement training. The use of onsite training has been sporadic and less consistently applied than in the Air Force and Navy, however efforts have been increased in this area (though the delivery of MDACC (adv) as noted earlier). The Army promotes the LRC mode more so than any of the other services, however this, like AOCI and the correspondence modes, represents (at this time) only a very small portion of the procurement training program.

OJT programs in all of the services varying widely and can be summarized as inconsistently applied between and within each service. The Army is engaged in a program involving a strong reliance on a structured OJT program at four of its installations. This program is ongoing at this time and no results are available. This is an area that is worth watching. The rule of thumb right now is for 75% of the acquisition and contracting workforce to be "fully" trained at any time--even though DOD direction is for 85% to have all the required courses. The Army (as well as the other services) does not have a good handle yet on how well they are able to achieve this figure; the primary reason being the lack of an effective acquisition personnel management information system.

3. Navy

The Navy formal procurement training effort is different yet from the Army and Air Force. The basic thrust to the Navy formal procurement training program is to bring the instruction to the people. The Navy does not "run" a procurement training facility (the Naval Postgraduate School not withstanding, which offers a limited number of fellowship programs and a graduate degree in Acquisition and Contract Management) such as the Army or Air Force. The Navy conducts separate construction oriented procurement training for NAVFAC (Civil Engineering Corps) personnel at Port Hueneme, CA. However the bulk of the Navy's formal procurement training is conducted via a contractor (BMRA) or through the Navy Acquisition Management Training Office (NAMTO) based at NSC Norfolk, VA.

Mr. Mike Miller of FAI stated at the March 1987 DC/ACMB meeting that "the Navy, by offering their own instruction to their own people are getting more dollars for it and getting better trained people" [Ref. 32] The Director of procurement training at NAVSUP Dr. Stone stated that the "Navy is doing exactly what ACE-I is recommending...getting more people trained". [Ref. 34] The results of this researcher's efforts to determine why the Navy has gone off on its own is where a lot of the "rice bowls and politics" enlightenment was revealed. Quite simply the Navy was having no success coordinating and satisfying their procurement training requirements with or through the Army and Air Force. Combine this with "making the front page of the New York Times and Washington Post" a couple of times and the drive to professionalize was on. Approximately a year and a half ago the Navy conducted a survey to analyze their training needs, some 16,000 deficiencies were noted that clearly could not be met by ALMC, AFIT and the other schools. The NAMTO at Norfolk was then designated as the Navy's training facility.

The Navy still uses ALMC and AFIT however NAMTO and BMRA are the two current major sources. The Navy has been using BMRA for several years with the same success noted by the Air Force. NAMTO was formed in part because even BMRA could not handle all of the Navy's training requirement. NAMTO has a staff of 38 procurement analyst instructors who travel across the country. NAMTO also is developing cooperative programs with colleges and universities so that contracting personnel may obtain certificates and college degrees on their off hours by taking the mandatory courses in acquisition and procurement. These programs are taught by instructors who have had federal contracting experience and

training and have been certified by NAMTO. The Navy evaluates what the Army and Air Force can give them, and then they lay out by geographical location where their courses will be.

Mr. Gordon Copas, Supervisor of procurement at NSC Oakland reported that NSC Oakland is encouraging NAVSUP to use them as a west coast training site. Mr. Copas felt that NSC Oakland is typical of the Navy approach to training. Within the San Francisco - Oakland Bay Area there are almost a dozen or so contracting activities (from all agencies) with GS-1102's to train. The NSC has a network of training coordinators within the Bay Area and anytime a course is being offered, they put out a letter to the other agencies informing them of the opportunity. This resource has definite application to the MLC being established in Alameda. A copy of this training network (along with numerous other reference materials) has been forwarded to G-FPM. A key point Mr. Copas emphasized was that the training program cannot solely be the list of mandatory courses.

> DODD 5000.48 or whatever the current directive is, is just a starting point. You must have an active internal program that meets the needs of the specific activity. Mission and skill level are constantly reinforcing certain points. [Ref. 39]

The basic DOD program is supplemented by their own program. The mechanisms for doing this include the designation of a training coordinator at each command, the use of a "Quality Circle" group - which identifies to management what the people on the floor see as their training needs, the contract review board (CRB), and the contract management reviews (CMRs). Mr. Copas noted that one of the best sources for finding out where your training needs are is the CRB. The CRB allows the manager to discover systemic problems and conduct trend analysis. It

allows review of a cross section of contracts and not just management by exception. The use of the CMR for training was noted with positive experience by Mr. Copas. The CMR can learn where the "soft" spots are and conduct maintenance training accordingly. They know the function the players, it is timely and very positive. This concept is no different than what the Coast Guard does when we have a good District Inspector.

K. OTHER AGENCIES

Some of the practices applied by the DOD services appear to have direct applicability to the Coast Guard's procurement training effort The remainder of this chapter will focus on the non-DOD agencies and the various procurement training and education resources. One key to keep in mind when evaluating these programs is that in term absolute numbers of GS-1102's to train, the civilian agencies have more manageable task than the individual services within DOS

1. Department of Energy, NASA and FAA

The Logistics Management Institute (LMI) study acquisition management in the Coast Guard compared the several times and in several ways to the Department Federal Aviation Administration (FAA) and the N Space Administration (NASA) The NASA procurement organization the Coast Guard they

- Are Washington ba
- Have technologi
- Are responsible
  contract awards
- Are smaller than the
  larger than most
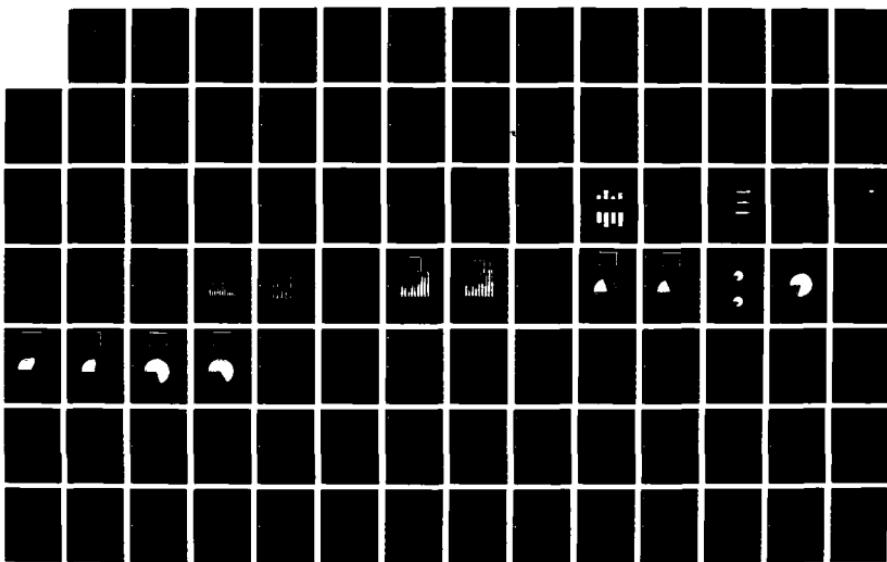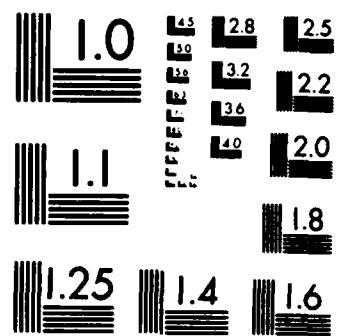
- Have strong, decentralized field organizations; however,
  functional oversight for acquisition matters is centralized in their
  headquarters acquisition organizations.
- In the case of DOE and FAA: have oversight and policy
  responsibilities as well as operational responsibilities.
- Are civilian agencies (and, in the case of the FAA, one of
  the Coast Guard's sister organizations in DOT).

For these reasons the formal procurement training programs of
each of these organizations was examined. It is interesting to note that
for three such "similar" acquisition organizations the range of
procurement training programs run the full spectrum of possibilities.

a. Department of Energy (DOE)

DOE's mission is to manage the energy functions in the
Federal Government in meeting and solving our Nation's energy problems.
Most of DOE's contracts fall into one of the following categories: atomic
energy defense activities, energy conservation, energy supply research
and development, fossil energy research and development, and energy
production and distribution. DOE has one of the best procurement
training programs in the Federal Government. This is not only the
researcher's opinion, based on the comparisons of many programs, this is
also an opinion voiced by many in Federal Government procurement outside
of DOE. DOE contracts out their entire formal procurement training
effort to one contractor; Atlantic Management Center Incorporated (AMCI).
The things that make DOE's program so successful is the quality control
they exercise over the program and the degree of top level support their
procurement training program receives (e.g. consistent funding).

The DOE developed their training program from the ground up.
DOE has fourteen core courses in individual skills training. These
courses were developed because they (DOE) felt that the DOD courses were
not customized to their needs.

- Basic Procurement (10 days)
- Contract Administration I (5 days)
- Cost/Price Analysis (5 days)
- Negotiation I (5 days)
- Contract Administration II (5 days)
- Contract Law I (5 days)
- Contract Planning (5 days)
- Cost Contracting (5 days)
- Construction/Architect and Engineering Services (5 days)
- Cost/Price Analysis II (5 days)
- Negotiation II (5 days)
- Federal Financial Assistance Administration I (5 days)
- Property Management, Real Estate (5 days)
- ADP, Telecommunications, and Utilities

DOE has ten major offices around the country, plus their headquarters where the training is delivered. The DOE program is one of the few procurement training programs that hasn't just taken DOD courses and adopted them for their use. The Director of Procurement Training for DOE, Mr. Paul Mink described the development of their program as rather unique with regard to their very heavy management of the Contractor delivered training. DOE started by pulling together a group of people from each of the major field offices, headquarters and the technical area that has oversight of the activity.

This inclusion of technical people right from the start appears to be one of the unique features in DOE's development of their procurement training. They began by asking; "what training do you need for your people?" and then put a name to it; there are numerous courses which have similar names. The group then developed a rough structure and competed the contract for development and delivery. The competition included an outline of the training programs and the Contractor comes back with a draft training program.

The advisory group reviews the material, the contractor revises and then puts on a prototype delivery of the course at an actual

site where the training is needed. At the training are the primary instructor, secondary instructor, the Contractor's Business Manager and DOE training and technical representatives that can assess the quality and accuracy of the content. Each day after class a formal meeting is held where they go over the program and make any necessary changes. The contractor incorporates the changes in the prototype and comes back with camera ready copy of all textbooks and other materials for delivery at all the other installations. When ever the contractor makes changes to their instructors they must first have approval from DOE.

The instructors have all taught at AFIT and other DOD schools. It appears that the quality assurance that ALMC is doing with the contractor delivered MDACC (adv) is a page out of the DOE's program book. Each course has a final exam and the contractor is given feedback on each delivery. This program has been in operation since late in FY83. The contract with AMCI is for 5 years. In FY87 DOE is conducting 90 one week programs with approximately twenty people per course.

As stated before, the key to this training is <u>top level commitment</u>, which translates into dollars. Mr Mink reported that <u>management at all levels has been very supportive and enthusiastic about the training</u>; they are spending close to $750,000 this year on training. An interesting point made by Mr. Mink was that he figures his break-even point on the tradeoff between sending a contractor to deliver training vs. sending procurement personnel to resident training is only eight people! This is attributable largely to their ability to obtain a multi-year contract because of their firm funding commitment. That makes this type of program very attractive simply because the logistics and coordination efforts required are not on a grandiose scale. A few of the

programs are conducted centrally in an east-west configuration as well. There are no facility maintenance costs, minimal (if any) travel costs and most importantly there is good control and standardization of the training. Equally important is that you don't need a monstrous group to run this kind of activity, DOE has been managing 80 deliveries/year for the last few years with two professionals and one clerical person. All materials are public domain and DOE does have room at times for personnel from other agencies to attend.

b. National Aeronautics and Space Administration (NASA)

At the other end of the spectrum is the NASA. NASA conducts research in various aspects of aeronautics and space technology, including development of space transportation systems. Major NASA acquisitions are made by the various NASA field installations. The procurement training coordinator at NASA headquarters, Ms. Meredith Sanders, described their program as "a little bit of everything. We have ten different centers where we do our procurement, each is very decentralized, as is the procurement training and career development at each center". NASA tries to piggy back on DOD courses whenever possible however they report that it has become much more difficult in recent years to do so (because of the preference DOD gives to their own people).

Recently, what NASA has been doing with relative success is when the Navy puts a course on the road (the increased Navy use of BMRA and NAMTO), they (NASA) can usually sit one to two persons. Ms. Sanders stated that the only reason this works is because each procurement center has a procurement training coordinator who makes the local contacts. Again, the importance of a person with local contacts appears significant. They get a DOD quality course and often don't get charged

for it. NASA also sends individuals to the commercially offered courses fairly often. It was reported by several personnel that you can often get the course a little cheaper than the price on the brochure and if they get enough people then a center will contract out for the course.

. Generally when they do contract out for courses a small dollar contract is written for each offering each time and each time they and up with a different contractor. Ms. Sanders stated that the reason NASA doesn't have an indefinite requirements contract is because the training funds are so uncertain that there is no way she can tell a contractor that they (NASA) will put on a certain course, a certain number of times a year. It is not a question of the demand not being there. At NASA headquarters they have had some success with a small business set aside for development of their executive refresher course (equivalent to DOD's), however with funding restrictions they've only run it three times.

A factor affecting the consistency of the NASA approach to procurement training is that each of their centers is extremely independent. The procurement officer works for the center manager vs. the administrator for procurement. The "relationship" with the Center Director determines much of the success of the procurement training efforts, for that person controls the dollars. The Goddard Space Flight Center has the most active procurement training program based on what was described as "a fantastic relationship between the Center Director and the Procurement Training Coordinator...they get way more money than the rest of us (other centers)". In general however, the NASA approach is abit of hit and miss; they do not achieve economies of scale department

wide and the consistency of achievement of the procurement training rests in the hands of the individual center directors.

c. Federal Aviation Administration (FAA)

The Department of Transportation (DOT) includes such diverse entities (or "modes" as they are called in the Department) as the USCG, FAA, Federal Highway Administration (FHWA), the Federal Railroad Administration (FRA) and the Urban Mass Transportation Administration (UMTA). The FAA and Coast Guard are the two major procurement activities in the DOT. The FAA procurement training effort is different yet from the DOE and NASA. The FAA publisned a series of required courses (9/25/85) which cover the spectrum from DOD courses to other civilian agency courses and commercial contractor courses. The FAA Academy holds a limited number of procurement courses, however since the mission of this institution is not primarily procurement, it does not account for a large part of the FAA's training effort. The FAA uses ALMC, AFIT, LOWERY, GSA and a contractor--Management Concepts Inc. (MCI) to meet their training needs. Almost all of the training is resident, however in FY88 the FAA is substantially revising the manner in which they will pursue formal procurement training.

Just after the FAA published their procurement career management program in late 1985, Gramm-Rudman came along and stopped them dead in their tracks. In FY88 all of the FAA's training requirements are planned to be contracted out. Their approach will be to contract out for the "canned" Government procurement courses rather than build from the ground up as DOE has done. There is not hard data on the cost of their program as yet, however there is good knowledge of their efforts in G-FPM. The most significant factor is that they are planning on a three

year contract (One year, two option years) because they too have gotten a firm funding commitment for such an effort.

2. Department of Commerce, Treasury and EPA

The next group of organizations that were investigated were chosen because the size of their GS-1102 contracting workforce is slightly smaller than that of the Coast Guard.

The Commerce Department (approximately 126 1102's), the Treasury Department (approximately 177 1102's), and the Environmental Protection Agency (EPA, approximately 139 1102's) were examined. Again a lot of diversity was evident; both Treasury and the EPA have very strong, ongoing procurement training programs, while the Commerce Department's program is more hit and miss.

a. Environmental Protection Agency (EPA)

Both Treasury and EPA have centralized planning of the procurement training requirements. The EPA uses a contractor exclusively for the delivery of 5-6 courses given at various times and places throughout the year. The Director of the EPA program, Mary Wentz, was very positive about the success they feel they've had with MCI, the contractor that they've had providing their procurement training. The Coast Guard has some experience with this effort, having satisfied some of our procurement training needs under EPA's contract with MCI. The Coast Guard response to this training has been mixed - primarily because the training is tailored to the EPA's needs. The EPA issues a data call annually to determine their procurement training needs. All their training is then funded and provided centrally based on the inputs from their field offices.

b. Treasury Department

Treasury, on the other hand, has centralized planning of their procurement training but are decentralized in their implementation. This effort is fairly new, less than a year old, and therefore no data is available on the program as yet. Treasury has issued a career development manual and uses a steering committee that meets three to four times a year to assess the training effort and provide direction for their centers. The Treasury Department took a slightly different tack in that they developed virtually all of their paperwork first and now are going about actually arranging the arranging training. The Treasury Department procurement career management instruction was recommended, by persons outside of the Treasury Department, to the author as a very good example of one to emulate.

c. Department of Commerce

In the Commerce Department, a procurement career management program was developed but never approved. Mr. Jim Arrn, who developed the program, identified funding and lack of strong top management commitment (same thing?) as the obstacles to implementing a standardized program in the Commerce Department. Procurement training is now determined solely at the option of the individual supervisors. The sources of procurement training within the Commerce Department vary with most personnel attending GSA courses. Some DOD, private sector sponsored courses and even the Department of Agriculture Graduate School have been used as well. Mr. Arrn describes Commerce as "sort of a hybrid of centralization" with centers in Seattle, WA.; Boulder, Co.; Kansas City, MO.; and Norfolk, VA. They also use ALMC correspondence courses because

of funding limitations. The lack of a procurement training program at Commerce is a source of frustration to those performing the acquisition function.

3. Department of Interior, NRC and VA

a. Nuclear Regulatory Commission (NRC)

The NRC was investigated simply because a research lead developed which the author pursued. The organization of the NRC is more centralized, than say that of NASA. However, their formal procurement training approach is quite similar to the mixed bag that NASA employs. The distinguishing factor about the NRC is that it was the only organization that consistently sponsored an in-house requirements type course. This is a customized course, taught by a commercial contractor (also MCI) that is given anywhere from six to twelve times a year for twenty five or more people. NRC has a three year contract with MCI to teach this course.

It is a standardized approach to the procurement training process that begins a step earlier by addressing the people who generate the need for goods and services. Other personnel interviewed outside the NRC expressed a need for training of this concept. Mr. Copas at NSC Oakland reported that they periodically conduct a requirements course with their major "customers" (i.e., the organizations they buy for, not from, in this use of the term). They provide such a course using some of the contracting people at the NSC but it is not as structured as the NRC's program. Nonetheless they recognize a valid need for this type of training. Several supervisors interviewed indicated that when this type of course is given by a third party (i.e. not the contracting office) it is somehow more believable to the requirements folks and therefore achieves better results.

b. Department of Interior (DOI)

The DOI program was another one that the researcher simply stumbled into. DOI is responsible for about a half billion acres of federal lands as well as development and preservation of natural resources. Procurement activities are decentralized within the Department's various bureaus. Some discussions with Colonel Armstrong, Chief--Division of Acquisition and Grants, revealed that DOI and the Coast Guard have many more organizational similarities than one might have first imagined. DOI has its headquarters in Washington, D.C.; however its procurement activities are decentralized within the department's various bureaus. DOI has been wrestling with many of the same procurement issues as the Coast Guard has but at a pace slightly ahead of the Coast Guard. DOI only recently (1 July 1986) established a procurement career board and developed a consolidated master training plan.

Their previous training strategy had been to hire away from DOD. They are now involved with contracting out for their own training needs, there is no experience or data yet to comment on the success of their efforts. This provides us (the Coast Guard) with an excellent research opportunity to gather data, experiences, etc. in the process of evaluating our own possible courses of action.

c. Veterans Administration (VA)

Another agency that provides similar research opportunities is the VA. The VA is doing some very exciting things with their procurement career training program. In particular, the VA has done a lot internally with regard to an active assessment of their training needs based on an analysis of the workforce and the results of various

audit reports.   Mr. Ken Lawrence, an Education Specialist at the VA,
stated that after doing an extensive analysis of their needs, they
decided that the DOD and other agency programs out there just wouldn't
satisfy those needs. As mentioned earlier, the VA is doing quite a bit
with self-paced instruction involving workbooks and video as well as CBI.
Some immediate potential application to the Coast Guard procurement
training effort is that Mr. Lawrence states that the CBI software he has
developed is not machine specific and he is more than willing to share
it. Self-paced instruction is not the only area where the VA is making
strides, like DOE, the VA has developed a set of core courses for their
procurement training program. At the present time, only courses for
their entry level personnel have been developed. The ground work (i.e.
the base research) has been completed however the necessary funds for a
complete development of courses for the intermediate and advanced levels
is not yet available. There are four core courses which make up the
entry level required training.

(1)   Fundamentals of Acquisition

This course is described as an "acquisition process part
1", covering presolicitation up to award. In this course and the next
one, the personnel are taught the specifics required in VA contract
administration.

(2)   Contract Administration

This course covers award to closeout. Much of this
course concerns the proper documentation required in contract files and
techniques for contractor performance monitoring.

(3)   Cost and Price Analysis

This course involves a technique not discovered in any
other agency training. Chapters on price analysis are sent to the

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individuals attending each course well before the course convening date. The student completes the chapters and mails them to the VA central procurement coordinator. An analysis of the results is done, then depending on the responses, the amount of price analysis conducted when the class convenes is tailored to the class. This often leaves more time to place the emphasis on the more difficult concepts of cost analysis. The course is built around an actual large VA buy. Mr. Lawrence noted that one week is really too little time, but for now that is how they are approaching it. They have also developed a supplemental CBI to the class case study which involves a constructive change order, this permits the employee an opportunity to continue to practice once he has completed the course and returned to his activity. They can also share the knowledge more readily upon return to their unit.

(4) Competitive Negotiation

This course is described as one week of intensive effort involving a lot of mock negotiations (again centering on actual VA procurements). A videotape supplementing the course has been developed, which contains nothing but negotiation techniques.

All of these courses are one week long, the average cost to put one on is about $12,000. Each course has informal evening sessions (pizza and beer) where attendance is not mandatory. So far, Mr. Lawrence states that no one has not gone and out of thousands of evaluations, he has had only one complaint (the pizza was cold). Before each course (not just the cost and price analysis course) an evaluation of attendees is conducted. This involves profiling the people attending ahead of time. Through this procedure, not only is the course VA tailored, but it is tailored to those attending as well. The mechanism

that permits this profiling is a scheme of anonymous code numbers which indicate who has had what training and where those people are. This system is managed by the civilian personnel training office (via the education specialist). As the program is demonstrating its usefulness (i.e. a demonstrable return on investment) the funding is beginning to increase as well. The training budget is $225,000 in FY 1987 and approximately $270,000 in FY 1988 (this does not include travel and perdiem funds--seperate pot--although because the training is brought to each site, travel and perdiem are minimized) for a workforce of about 400 GS-1102's.

4. Private Industry Training

The Packard Commission stated that "We believe it is possible to make major improvements in Defense acquisition by emulating the model of the most successful industrial companies". [Ref. 13:p. 52] Although this conclusion was not focused on procurement training, the author has attempted to apply the basic theory anyway. Therefore, to gain a perspective on what some of private industry does, regarding training of their contracting personnel, interviews were conducted with representatives from some of the larger Federal (Defense) Contractors. Officials from Hewlett-Packard, Bell Helicopter, General Electric and Lockheed were interviewed concerning the efforts they expend in professionalization of their Contracts personnel.

In general, private industry hires people who already have the skills and/or service background. Even through private contractors do not have the same required procurement courses as those of us in Federal procurement, this does not mean that they do not conduct any training. Certain maintenance and baseline training is required. For example, each

of the companies was scheduling or had conducted a 2-3 day seminar on the new DOD profit policy for all contract administrators and program managers. This was done in-house by some or via a commercial contractor such as Federal Publications Incorporated. Most of the companies report that they don't send people away for much longer than a week to participate in training. At General Electric for example, they have a required one week contract administration skills course that all contract administrators must attend. This is done through a private contractor. GE also requires a one week in-house workshop on negotiation skills, regardless if personnel have had this training elsewhere. Many industry courses are conducted with intensity; typically the one week course starts on a Sunday evening and then runs 8-8 Monday through Friday. This has some pluses and minuses, some feel there may be too much information to digest at one time while others feel it is an excellent maximization of the time away from the job. Two dominant themes were evident: (1) "the way we hire is a major input" and (2) a proposition developed by Peters and Waterman in In Search of Excellence: that "excellent companies are far above the norm in the amount of time they spend on training activities", was confirmed. [Ref. 40:p. 264]

L.   SUMMARY

The use of resources to satisfy an individual agency's training needs is as broad as the imagination of the people running the programs. The variety of training methods coupled with the inevitable resource constraints presents a challenging task to the procurement career manager. The dominant theme throughout is top level support. Second is

that the more successful uses of the available resources are those that are tailored to the specific agency to achieve the maximum return on investment. The next chapter presents a discussion of career management programs as a systems concept.

A.   INTRODUCTION

Although the primary focus of this thesis is the training and education of the procurement workforce, a plan of action cannot reasonably be forwarded without comment on the other facets of a total career management system. In Chapter I the statement was made that procurement training and education are only parts of a complete procurement career management system. This chapter is a brief presentation and analysis of the other elements comprising the total career management system. In the process of investigating the procurement training skills, competencies, resources and organizational uses of those resources; various aspects of agency procurement career management systems were encountered.

Because training is not an end all to itself a revisitation of the framework in which procurement career development (training and education) resides is necessary. Just as procurement itself is not conducted in a vacuum, neither can any efforts to improve acquisition training be treated singularly. This chapter addresses such elements as the overall career management program, personnel intake programs, contracting officer selection and appointment, performance appraisal and rewards, career development and procurement research.

B.   CAREER MANAGEMENT AS A SYSTEM

The procurement career management program is a systems approach to the administration/leadership of the procurement workforce with a goal of

improving agency mission accomplishment through the acquisition function. The term procurement career management program, is used to characterize the whole process of improving agency acquisition through professionalization of the workforce. Any career program must first and foremost meet the needs of the agency in accomplishing its mission. It will do us no good in the Coast Guard if we establish a wonderful training program and don't fund it, or track it, or provide career paths for personnel to use their training and a grade structure to support retention, etc. The next section presents some of the approaches to procurement career management employed in the various agencies.

1. Department of Defense

Within DOD, each of the services has a well defined acquisition career program for its officers. These include the Army's Materiel Acquisition Management (MAM) program, the Navy's Material Professional (MP) program and detailed career planning regulations for Air Force officers. The Navy Acquisition Contracting Officer (NACO) program is a very comprehensive program that is sort of an intern program for military officers. This program is spoken of very highly by many throughout the services.

The military services have recently designed new civilian procurement career management programs or redesigned existing ones. "The Air Force Acquisition Civilian Career Enhancement Program is intended to attract, develop, and retain a qualified, well-training, professional work force." [Ref. 17:p. 111] The program elements include training and development, career-broadening programs, career planning assistance, recruiting, and management information systems.

The Navy's career program for civilian contracting personnel uses rotational assignments provided through an intern program as well as fellowships for graduate study in contracting.

The Army has instituted a new program called the Logistics and Acquisition Management Program. This program's goal is to improve the logistics and acquisition workforce by developing career civilians the same way as officers. Some of the steps are:

- planning their development from the intern level to the Senior Executive Service,
- providing a managerial training curriculum,
- developing managers with a multidisciplinary understanding, and
- providing a blend of assignments and schooling.

2. Civilian Agencies

The civilian agencies are just beginning to come on line with procurement career management programs of their own. There is no separation of civilian-military in the procurement workforce to deal with. The DOE has one of the older, more complete procurement career development programs. It addresses all of the elements identified above. DOI, as mentioned previously, has recently developed a career program which addresses grade structure, training, an intern program, recruitment, a warrants program and an acquisition personnel MIS.

3. Career Management Instructions

The FAI's "Guidelines for Developing Procurement Career Programs" states that "publishing an agency supplement (i.e., enabling instruction) is the first step...in establishing or improving your agency's career development program". [Ref. 4:p. 5] The procurement career management program instructions for seven agencies (including two proposed drafts) were examined and discussed with individuals in their organizations. The author takes some exception to the statement by FAI noted above, and that

is simply because the enabling instruction should not be the first step but merely the formal implementation of the through groundwork required to implement a viable career management system. The reason this exception is taken derives from the examinations and discussions of the various career management system instructions.

The instructions run the gamut from complete documents to mere paperwork in support of E.O. 12352. The system enabling directive is the mechanism through which the procurement career management system is formally established and very importantly; institutionalized. This requires a tailoring of the program through specific assignment of responsibilities, a determination of the nature and scope of the program and provisions for documentation and feedback. A major input to this process must come from those being managed, i.e., the workforce. In the course of this research, it was apparent that several agencies merely adopted programs from others.

Recognizing that there is no need to reinvent the wheel, the career management programs will vary from agency to agency depending on that agency's unique needs and organization structure/management. A common ingredient in the successful tailoring of a procurement career management program is this front loaded workforce analysis, which is subsequently reflected in a useable enabling instruction. The DOE, DOI, EPA and Treasury all have good examples of career management system directives tailored to their workforce. These instructions establish functional and personnel responsibilities down to the supervisor and worker levels. Some agency instructions reviewed are too vague to establish accountability and in the process of discussing these directives it became evident that these instructions were simply adopted

wholesale or mere cut and paste efforts from other agencies. Again there is nothing wrong with this from a duplication of effort point of view, however there must also be active field input to tailor the program and establish a sense of ownership with the procurement workforce.

4. Implementing Mechanisms

As much as a good instruction is necessary to establish a career management program, even more crucial are the mechanisms used to implement and monitor the program. The hub of any such mechanisms is generally two fold: (1) a full time procurement career manager/training coordinator and (2) an acquisition career management board. At least two agencies that were examined had very nice programs on paper but in reality they were simply paper tigers. Neither of these two organizations had career boards or a strong focus to their career management efforts (despite what the enabling instruction said).

a. Procurement Career Manager/Training Coordinator

Each agency with a successful procurement career program had at least one full time procurement career manager/training coordinator. This is a civilian at usually the GS 13/14 level. The primary qualification (or characteristic) seems to be a dynamic "mover and shaker". It is not an absolute requirement that he (or she) be a procurement type (the NAVSUP and DOE procurement managers are not used contracting types). Each of the successful procurement career managers cautioned against the "need" for a huge bureaucracy to run the procurement career program--it just isn't needed...but at least one full time individual is! The procurement career managers establish networks inter and intra-agency, for the accomplishment of training goals. Equally important, they establish liaisons with contractors, resident

training heads, and other sources for training resources. This is very important to know what kind of training you are setting your personnel up to receive. An example was presented by the procurement curriculum manager at ALMC (CRD Pingle) on the applicability of the MDACC(adv) course. This course is one required for intermediate level personnel. The interesting point made by CDR Pingle is that the MDACC (adv) is of a:

generalized nature and covers a broad range of complex areas foundational to systems acquisition, to help broaden the professionalism and sharpen the skills of students for performing at the senior executive level. This is a career development course but it will not necessarily enhancing the specific job an employee is doing. For example--DLA doesn't do major systems acquisition, therefore MDACC (adv) is not really for them--even though it is required. It is an academic exercise allowing a GS-7 to attend this course. [Ref. 5]

The point is that if the Training Coordinator and even more importantly, the supervisor, are not aware of the orientation of a particular course, they may be expecting the employee to get something alot different out of a course than he is really being taught. Career development training and job performance improvement training may not always be synonymous. and just sending an employee to a "required" school may not achieve the desired results.

b. Acquisition Career Management Board

The Acquisition Career Management Board (ACMB) is what makes the procurement career management system instruction more than just another piece of paper. DOE and DOI have been cited as having very good procurement training programs and procurement career management instructions; it is no surprise that they also have active ACMB's. The general composition of the ACMB in both DOE and DOI is similar in one distinct area: <u>substantial</u> and <u>substantive field participation</u>. In DOE the composition of the ACMB is the agency procurement executive, the

training coordinator(s) and the heads of the field contracting
activities. The board met quarterly when the career program was getting
off the ground and now meets every six to eight months. The new board
chairman, Mr. Steve Logan, reported that as the acquisition career
program has progressed, the frequency of required meetings has tended to
decline, to a point where they serve a sort of maintenance function for
the program.

In DOI the chairmanship of the career board is rotated among
the heads of the bureau contracting activities. Again, all of the
bureaus are represented on the board as well. The agendas each of these
boards reported dealing with consist of identifying workforce problems
peculiar to the career field as a whole and functional specialties in
particular. Workforce analysis such as education levels, amounts and
type of training, turnover etc., are addressed. Workforce objectives and
improvement plans are also on the agendas.

The March 1987 DOD meeting of the DC/ACMB addressed itself
almost solely with a review of the curriculum of procurement courses
offered by ALMC. What becomes readily apparent though, after listening
to this meeting, was the excellent forum such a provision is for
cross-pollination of ideas. It was immediately apparent how the
establishment and utilization of a career board makes it possible for key
procurement mangers from the various, and often autonomous, services or
agency components to come together routinely for the common good of the
acquisition process in general and the career field in particular as a
whole. The management structure or infrastructure within which career
boards operate are much alike from one agency to the next. However, the
specifics of the system and what constitutes the system (warrant

programs, intern programs, mandatory training, etc.) must be structured

and designed in response to individual agency needs to be effective.

c. Acquisition Personnel Management Information Systems

A MIS is needed which will: (1) report all positions...considered to
make up the procurement workforce, (2) identify all personnel filling
these positions and their vital data as to education, training and
experience, (3) indicate which career ladders are applicable to them,
and (4) serve as a basis for management decisions affecting personnel
actions, budgets, programs, etc. [Ref. 25:p. 31]

Our study revealed that existing personnel management information
systems are inadequate and are unable to provide current information
(vital statistics on positions and personnel) on the procurement
workforce. Data from existing sources was found to be incomplete,
inaccurate, and not current. It was impossible to accumulate
sufficient information from the Federal Agencies to study or analyze
the characteristics of the overall procurement workforce...it is
imperative that a...procurement personnel management information system
be developed. [Ref. 41:p. 47]

There currently is no method capable o. identifying and tracking the
size, composition, or state of training of the acquisition workforce in
a timely fashion. Absent such a capability, one cannot effectively or
efficiently conduct planning, programming, or budgeting actions related
to that workforce. [Ref. 21:p. 5]

The above quotes are from the August 13, 1970 Report to

Congress on the Action Required to Improve DOD Career Program for

Procurement Personnel, the December 1972 Report on the Commission on

Government Procurement and the December 1986 Acquisition Enhancement

Program Report II, respectively. Although referring either in general or

specific to DOD, these comments could equally be applied to the Coast

Guard and many other Federal agencies. It is significant to note that

along with the continuing "call to professionalize" there has been a need

for an acquisition personnel MIS that has not been filled.

Within the Federal government there is a plethora of separate

sources for personnel data, however they are not uniform as to content,

do not use compatible equipment, do not have a common collection base,

and most importantly: are rarely used for management analyses. Lack of an acquisition personnel MIS directly affects the ability to determine how large is the training task, what the distribution of required courses is both by subject and geographical location, etc. The subject of an acquisition personnel MIS has come under renewed fire in DOD. The Air Force Civilian Personnel Management Center initiated a project called COPPER PURE, which was designed to update the Personnel Data System-Civilian (PDS-C) training records. In interviews with Dr. James Edgar of the Air force Civilian Personnel Management Center and with Mr. Michael Dove of the Defense Manpower Data Center, a draft of the instruction (April 87) "Reporting Functional and Training-related Data on Department of Defense Civilian Acquisition Personnel", was reviewed. Dr. Edgar stated that the development of an acquisition personnel MIS is one of the six key recommendations from ACE-II that new Deputy Assistant Secretary of Defense (AS&L) Costello has ordered action on.

The Army is still 2-3 years away from an acquisition personnel MIS, and until then, they cannot really get a good handle on their procurement workforce's needs. One of the problems with the DOD MIS efforts is the sheer size and diversity of inputs. This problem is not inherent in the smaller civilian agencies. Certainly any improvements to the acquisition career management system should include an acquisition personnel MIS. As we have seen in the previous chapter, a significant key to the success of the VA's training program is the use of an MIS to determine training needs and tailor the training to fit their needs. These MIS's do not require huge software/hardware requirements. The DOI is developing their acquisition personnel MIS on a personal computer using dbase3. Some of the initiatives behind their development

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of an MIS were that once the training program was under way, they had no handle on turnover, experience, individual development, etc. Much of the success of the VA training program is based on their acquisition personnel MIS. This is how they are able to proactively assign quotas and tailor their courses to the individuals attending, as well as facilitating consistent follow-up on the adequacy of training received.

C. RECRUITMENT AND INTERN PROGRAMS

The intake of personnel into the procurement career field is another element of the overall procurement career management system. This element is concerned primarily with recruitment and intern programs. This study did not pursue these facets however a few comments are offered.

1. Recruitment Programs

Recruitment applies to any method through which personnel are brought into the acquisition career field. The ability to attract and retain highly qualified personnel is a basic element of any career management system. There are five basic methods used in recruiting personnel into the acquisition career field:

(1) Entry level examination.
(2) Direct recruiting from college campuses.
(3) Cooperative education programs.
(4) Upward mobility programs.
(5) Merit promotion.

The recruiting methods for procurement personnel where not specifically addressed in this study. The primary feedback on the importance of recruiting to many of the agencies is that it is vital to work very closely with the Personnel Department to ensure they are aware of your needs and desires. The use of quality ranking factors such as

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college level course completion and professional certification were addressed in this context.

2. Intern Programs

> Intern programs are one of the proven sources for developing highly qualified procurement personnel. However, most agencies have not given such programs sufficient priority; many agencies have no program at all. [Ref. 35:p. vii-3]

> DODD 5000.48 requires that: each component shall have a procurement intern program that is centrally managed and controlled to provide a source of highly qualified candidates for high level positions. [Ref. 30]

Intern programs can be used with any type of recruitment method. The Air Force Logistics Command has had outstanding success with their intern program. In an interview, General Richard Smith, Commander AFLC, stated that at his command they have an 80% retention rate after 5 years and that the Air Force in general is experiencing a 90% retention rate (service wide) from their intern program. This provides an outstanding continuity and quality control over what is characteristically a highly mobile workforce. The LMI study cited the lack of an internship program in the Coast Guard as being a staff resources weakness.

Intern programs are expensive and take a lot of manpower to administer. A basic acquisition career management system must be in effect to fully maximize any benefits to be derived from an intern program. Several years ago NASA tried to start an intern program and found it prohibitively expensive. A contributing factor was the lack of a sound agency-wide, centrally coordinated procurement career management program. The DOI is using their intern program as a method for focusing development of procurement careerists on several specialties that were deemed lacking such as contracting for ADPE. They not only, "grow their own", but they further focus their development on some of the particular

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special needs of the department. Lack of an intern program does not invalidate other improvements to the acquisition career management system (like the lack of some of the other elements would), it simply enhances the effectiveness of all the other elements that comprise a career management system. The VA has a very viable procurement training and education program without benefit of an intern program.

D. CONTRACTING OFFICER SELECTION AND APPOINTMENT SYSTEM

The next element of the procurement career management system to be addressed is the contracting officer selection and appointment system. Every Federal procurement agency examined has some sort of warrants program. The Coast Guard warrants program, established in 1986, provides adequate guidance for selection, appointment and termination of appointment of contracting officers. The response from the field (Coast Guard) has been virtually all positive, indicating that "the warrants program is a step in the right direction". It was noted that some felt that the requirements of the warrants program were laid on the field, without providing adequate resources (i.e. dollars and/or quotas) to pursue them. An up-to-date listing of warranted contracting officers was not readily available because the system is kept manually in G-FPM. This further dramatizes the need for an acquisition personnel management information system (MIS).

E. PERFORMANCE APPRAISAL AND REWARDS

The use of Individual Development Plans (IDP) is widespread through Federal government procurement organizations and presents a ready input to an acquisition personnel MIS. Like the procurement career management

system instructions from which they derive, the use and viability of IDP's varies widely. IDP's are required in DOD, although they are stressed only for interns. In both DOE and DOI the IDP is used actively. NASA has a very nice looking IDP that is used only sporadically. The basic use of an IDP is as both a record and a plan for the supervisor and employee to define the training, education and experience needs of the employee. These needs are developed to accommodate the employee's developmental needs as well as the objectives of management. IDP's are used for forecasting and reconciling the goals of the individual and organization over a specified period (say 1-3 years), and identification of the skills and knowledge required to improve performance in the employees present position and to project those needed for future assignments.

The key to the success of an IDP is what happens after it is filled out. In several organizations where the procurement career management system directive required IDP's; both supervisors and employees either totally neglected it or considered it merely a paperwork drill. Several personnel at the DOT Procurement Conference, from the modes (modes is a term used in the Department for an administration such as FAA, FHWA, etc.) that require IDPs had no idea what one was or what one looked like. If used properly, the IDP and MIS can combine to become the mechanism for the consolidation, preparation and presentation of a training budget for the occupation as a whole. IDPs and an MIS will help reconcile differences in grade structure and position descriptions within an agency and external to the agency relative to other Federal agencies.

F. CLASSIFICATION AND POSITION MANAGEMENT

The Task Group 6 report identifies classification and position management as an area often overlooked by Government procurement managers. Procurement managers are the ones who develop position descriptions (PD's) based on the duties and functions actually performed. Recruitment and vacancy announcement are based on criteria contained in qualification standards which support the classification standards. Two areas of concern that I will address under this heading are grade structure and critical job elements.

1. Grade Structure

The LMI study identified a low grade structure and lack of promotional opportunities as the most important reasons for a high turnover rate. Grade structure and career progression go hand-in-hand. "If you hire someone as a GS-5 out of college, clearly you've got to be able to promise him something down the road." [Ref. 37]

The requirement for an adequate grade structure and career progression opportunities was repeatedly emphasized in the course of interviews with personnel at all levels of procurement in the Federal government. A high level official in the Air Force put it a little more poignantly:

> If you can't offer a GS-12 in three years than you're not offering a track that can keep that person. If your grade structure runs out of steam at GS-11, you have to compete for supervisor at (GS-12, then you're actually promoting from amongst the people no one else wanted.

The VA is having a significant problem in this area. Although they have an excellent procurement training program, lack of a supporting grade structure is killing them. They are loosing alot of people to DOD. Mr. Lawrence reported that top management now realizes that lack of

consistency between grade structure and a good training program can actually be as detrimental as no program at all, simply put--they just cannot afford to fund a revolving door that trains people for employment at other agencies.

2. Critical Job Element

The second element for discussion under classification is that of "critical job elements". Although every agency investigated said that they did not have a "major" problem with supervisors not wanting/allowing training, it was still evident as a "concern". Dr. Stone from NAVSUP, described the role that the director of each contracting shop plays . as the "fatal flaw" in making sure that once all the information and resources are made available to each command, that the people do infact get the training they need. What the Navy is trying to do is get it into the merit pay objectives or evaluation of the supervisor that their workforce must be trained. According to Dr. Stone : "the carrot works well but the stick sometimes works better". [Ref. 34] The author voiced this option during the training breakout session at the DOT Procurement Conference and it was fairly well received.

G. PROCUREMENT RESEARCH

At first glance this subject appears somewhat abstract. However, the objective is not to necessarily conduct the research oneself, but rather to at least identify sources for completed research, list alternatives for improving the use of current data and to target areas for conducting further research. There are always pilot projects being sponsored in Federal government procurement. The Navy uses these to great advantages, not only to be at the forefront of what is going on, but also as another

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means of attracting funds. The head of Naval Supply Center Puget Sound, CDR Dick Anastasi, suggested a judicious approach to volunteering for certain projects as a way to attract additional funding. Procurement research then is merely a fancy title applied to communication.

Through the process of this thesis, the author uncovered or was exposed to an incredible amount of completed and ongoing initiatives that have either immediate or potential future application to Coast Guard procurement. It has already been demonstrated that a lot of other agencies are experiencing or have experienced similar problems as the Coast Guard. Every single procurement executive was more than willing to share their experiences (both positive and negative) with the author, to develop a better procurement program for the Coast Guard.

H. SUMMARY

The above elements of a procurement career management system are not all inclusive, however they represent the main ingredients and the approaches of some of the Federal agencies. This data sets the framework for any discussion or procurement personnel career enhancement. The next chapter begins the process of looking at the Coast Guard specifically with an evaluation of the contracting workforce.

VII. THE COAST GUARD ACQUISITION WORKFORCE

A. INTRODUCTION

Perhaps the most crucial step in the development of a procurement master training plan or recommendations to enhance the procurement career management system, is to target the audience. Yet, too often in the agencies investigated, the procurement career management program and master training plan were simply adopted (from other agencies) without any attempt to define the population that is to both participate and benefit from these programs. The business judgements, qualifications, ethics and motivations of Federal Government acquisition personnel are major topics of debate for the press, Congress, and top levels of the Executive branch and military hierarchy. This chapter is an attempt to determine the opinions and perceptions of those who must translate procedures and policy into contract actions for the United States Coast Guard. Along with the effort to learn from the workers themselves about concerns such as training, resource use, etc., and attempt will be made to provide a comparative analysis between the DOD contracting workforce and the Coast Guard's contracting workforce.

A recent survey authorized by the Packard Commission has provided much of the data on the DOD contracting workforce to be used for the comparative analysis. Mr. Louis J. Erste, who prepared the survey for the Packard Commission, was consulted to assure consistency in survey techniques and application of results. It is this researcher's opinion that the comparisons made are done with a reasonable assurance of validity. An objective of the research that was not completed was a

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comparison of the Coast Guard workforce with other Federal Government (including DOD) and Industry procurement personnel. This comparison was to be made using the results of a survey sponsored by the NCMA in January/February 1987. Certain questions were in fact, exactly the same on each of the surveys, however the results of the NCMA survey are not yet available. This may be an area of further interest and research once the NCMA survey results are available.

B. SURVEY USAGE

Since the primary data gathering technique used for this section was the survey issued as part of this research, the key points concerning the survey usage are repeated for reader refamiliarization. One hundred and thirty (130) mailed questionnaires consisting of 81 questions. The data has been supported by telephonic and personal interviews, along with workforce observation. The survey was mailed to all of the Coast Guard procurement offices with contracting responsibility, based on data provided from G-FPM. As noted in the introductory chapter, no surveys were mailed to the District Offices and no input was received from the yet to be commissioned MLCs. As of 01 June 1987, a 68.5% return rate was achieved. This rate is considered quite good for research of this nature. By comparison the Packard Commission achieved a 62% overall return rate (which is also very good). This survey focuses on one segment of the procurement workforce--the GS-1102 series and military equivalent. This is the group most directly responsible for ensuring that fairly and reasonably priced goods and services are obtained in a timely and efficient manner.

The respondents to this survey are involved with all types of procurements: from supply and services contracts to construction contracting and systems acquisition. Twenty-two percent of those responding work most frequently with contracts between $25,000 and $100,000; while 47% deal most frequently with contracts over $100,000. Forty-three percent of the respondents are warranted contracting officers, with 42% of those possessing unlimited warrants. It is felt, by the researcher, that a representative sample of the Coast Guard contracting workforce has been reached.

The following summary highlights the key findings of the survey. The first section presents workforce reaction to education and training concerns. The second section addresses workforce opinion on the acquisition environment. Organizational issues such as regulations and guidance, resource adequacy, and motivation and rewards are addressed. The final section presents the acquisition workforce demographics.

C. EDUCATION AND TRAINING

It comes as no surprise that 100 percent of those surveyed agree that formal procurement training is necessary to perform efficiently. Eighty-eight percent of the Coast Guard contracting personnel believe that their jobs should have a "professional" civil service classification. In comparison, three quarters of the contracting specialists in DOD feel this way. As we discussed in Chapters III and IV, changing the job classification to "professional" requires a proven body of knowledge, manifested by education and experience.

1. Education

A clear majority (62 percent) agree that an entry level criteria of business-related college courses should be established for contracting series personnel.   The differences of opinion between civilians and military is very much in agreement with the Packard Commission results. Fifty-nine percent of the Coast Guard civilians agree with the need for college business courses, in DOD this figure is 56%.   Likewise, 71% of the Coast Guard military agree that some college business courses are needed and in DOD 74% of their military concur.   The Packard Commission has recommended a minimum of 24 credit hours of college-level business courses for Federal government contract specialists. Program, business and logistics managers in DOD support both of these requirements for contracting personnel. Even though the need for some business education is seen by a majority of the contracting workforce, 44% of the Coast Guard workforce strongly disagreed with the requirement for a college degree.   The Packard Commission results were described as "mixed" in this area.

Differences of opinion between civilian men and women are notable; 36% of the males say degrees are necessary, but only 19% of the females agree.   These results are lower than the Packard Commission results but the general trend is the same.   The Packard Commission also reported that similar proportions agree that contract specialists need business-related college degrees (Figure 7.1).

2. Training

Forty-six percent of the Coast Guard procurement workforce indicated that they have not taken all of the required courses for their present position (an additional 6% were unsure).   Once hired, the
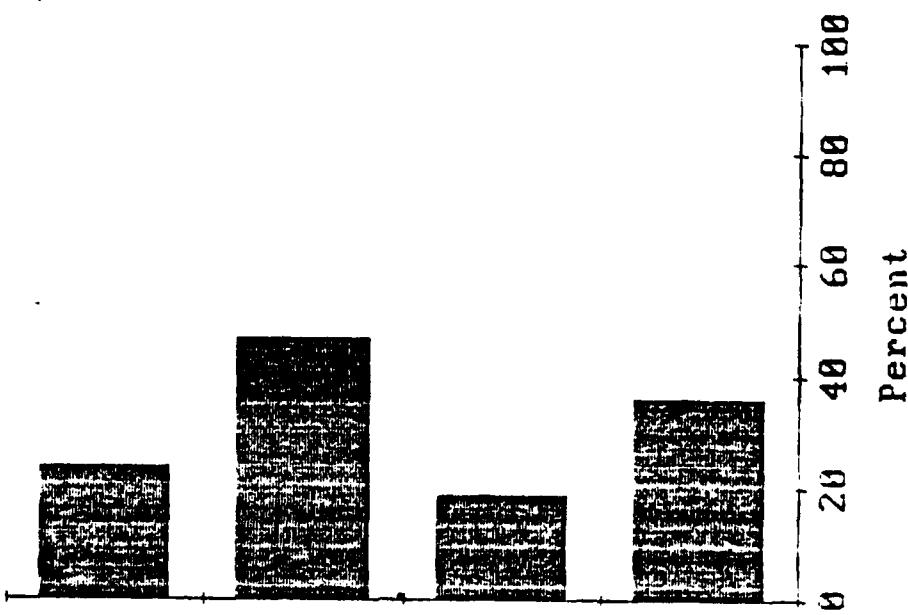
Figure 7.1 Perception on Requirement for College Level Education

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majority (73%) of contracting personnel believe they receive sufficient formal procurement training to perform efficiently, only 16% strongly disagreed. Approximately half of the respondents feel that the on-the-job training they receive is sufficient (21% neutral, and 29% disagreeing), while 42% feel strongly that the frequency of formal classroom training at their contracting activity is inadequate. Slightly over one-fourth (29%) indicate they feel their career development is suffering due to inadequate procurement training. Figure 7.2 summarizes this data along with a comparison to DOD.

The workforce is split on how training courses should be conducted with about one-third recommending training in conjunction with other Coast Guard commands. The primary reasons cited where applicability (i.e. better focus on the Coast Guard) and scheduling. About one-fourth recommended courses through DOD while another fourth proposed commercially prepared courses as the way to go. Each citing quality of instruction as the reason. The most frequently desired formal procurement training courses are: Contract Pricing, Competitive Proposals Contracting, Negotiations, and Working With The FAR. The most frequent type of training received is MDACC(basic) or some other form of Basic Contract Administration Course. Sixty-two percent of the respondents had taken a course in Cost and Price Analysis and 47% have had training in Negotiations.

5. Reasons For Not Participating in Training

No less than three separate questions address time as a factor in training accomplishment. Over 50% of the Coast Guard contracting personnel say that lack of time is the primary reason for not doing training, even though 51% agreed they had adequate time to attend

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Figure 7.2 Perception That Adequate Training is Received

training courses (similar to DOD where sixty percent claim insufficient time to attend training courses). Forty-six percent responded that they personally have the time necessary to support a comprehensive training program. Other reasons cited were: that travel and perdiem funds are insufficient (31%), that personnel say they are not informed about training opportunities (27%) or that there are not enough quotas for the training they need (39%). One-fifth say that lack of supervisory approval prevents them from getting the training they need. For comparative purposes the Packard Commission results are presented in Figure 7.3.

D. THE ACQUISITION ENVIRONMENT

The next section will address the acquisition environment, including organizational issues, regulations and guidance, and motivation and rewards.

1. Organizational Concerns

Forty-five percent of the respondents indicate that they found out about training and education opportunities from their supervisor or training officer. Thirty seven percent identified the supervisor is responsible for accomplishing training, while one-fourth said that each individual is responsible for training accomplishment. An almost opposite distribution is revealed concerning currency with changes to laws and regulations (40% say they keep up to date through their own efforts, 23% indicate their supervisor keeps them up to date).

A majority (57%) say their office has a procurement training plan (7% are unsure), however of those that have a plan (i.e. of that 57%), 40% of them report that it is not kept current and updated as necessary.

Figure 7.5 Reasons Cited for not Accomplishing Training

The questionnaire revealed that in a clear majority of procurement offices jobs are not rotated periodically to broaden a contract specialists experience. Job rotation for cross-training is not always possible due to the size of each office and/or the method by which the work is divided within the office. Over two-thirds indicate that there is no overlap of job functions with personnel in a different job classification (i.e. GS-1105's are not doing contracting; 15% weren't sure). Over half reported that there is a distinction within the GS-1102 series, of jobs done by someone of a higher or lower level (level I,II,or III). When people are gone for more than a week. almost two-thirds of the time their work is given to another office worker or the supervisor does it (depends primarily on the "urgency").

2. Regulations and Guidance

A clear majority of Coast Guard contracting personnel (85% CG, 86% DOD) feel in general that the performance goals of their job are clear to them. The survey examines some key sources of guidance for contracting personnel on how to accomplish acquisition job goals.

a. Laws, Regulations and Policy

When discussing whether they receive adequate guidance to be their most productive, Coast Guard personnel are not nearly as critical of the laws, regulations and policies that guide them as their counterparts in DOD. Whereas in DOD 40% say the regulations are inconsistent with sound business practices, only 22% of the Coast Guard procurement workforce feel the same. A similar disparity was reflected over the opinions on whether the laws, regulations, and policies written to guide Government procurement personnel are positive contributions to obtaining fairly and reasonably priced goods and services. A little over

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half (58%) of the Coast Guard contracting personnel agree that the laws and regulations are positive contributions, while in DOD, a significant majority (78%) feel that the rules, regulations, etc., cause needless confusion and inefficiency. A clear majority of Coast Guard personnel (76%) say that in general, under the guidelines given to them, they feel they are able to obtain fairly and reasonably priced goods and services of satisfactory quality.

A similar percentage responded that they are usually able to find acceptable answers to procurement questions in a contracting regulation or SOP (Standard Operating Procedure). Interesting however, is that 57% responded that they must frequently choose an "expedient" course of action rather than take the time to search for the "best" solution to a procurement request. About one-fifth say they sometimes do things because "that's the way we always have" when they cannot find a specific answer to their procurement question.

b. A Deskguide as a Reference

A common form of guidance used at many procurement activities (throughout the Federal government) is the use of a deskguide to facilitate procurement actions. About half (49%) of the Coast Guard respondents say they have a local handbook or deskguide to assist them. However, of these, 41% indicated that it was not up to date. A significant majority (86%) of those without a deskguide felt that one would be useful and worth developing. Two-thirds also indicated that there is a well maintained purchasing library at their contracting activity.

c. The Supervisor as a Reference

Probably the most significant source of guidance is the supervisor. Contracting personnel generally view their supervisors as credible sources for information and guidance (in both DOD and the CG). A significant portion (38% in the CG, 41% in DOD) question whether supervisors have sufficient time to provide the appropriate levels of supervision. Less than one-fifth believe the guidance received from their supervisor conflicts with the rules and regulations (this figure is somewhat higher in DOD according to the Packard Commission; 29%).

Figure 7.4 is a presents a summary of the direction and guidance findings.

3. Resource Adequacy

In general, Coast Guard contracting personnel are equally split over their satisfaction with the level of support they receive. Fifty-five percent feel that the space and equipment they have is adequate to perform efficiently. A slightly lesser amount agree that the computer resources (50%) and clerical support (48%) available are adequate to perform efficiently. There is good correlation between the adequacy of computer support and the percentage of people who use a computer to help carryout the procurement function (49%). Figure 7.5 is a comparison of these concerns with the DOD workforce.

4. Motivation and Rewards

The contracting personnel were asked to rank the work rewards they most value. Due to the number of military respondents who completed these questions (some only answered inpart or not at all, coupled with their just not being a large military contracting population to draw from) the statistical validity of the responses (i.e. $n < 30$) may be

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Summary Of Direction And Guidance

Legend: Disagree, Neutral, Agree

Categories: DOD Supv Direction, CG Supv Direction, DOD Adeq Supv Time, CG Adeq Supv Time, DOD Adeq Supv Skills, CG Adeq Supv Skills, DOD Rules Sound, CG Rules Sound, DOD Rules Clear, CG Rules Clear, DOD Job Goals Clear, CG Job Goals Clear
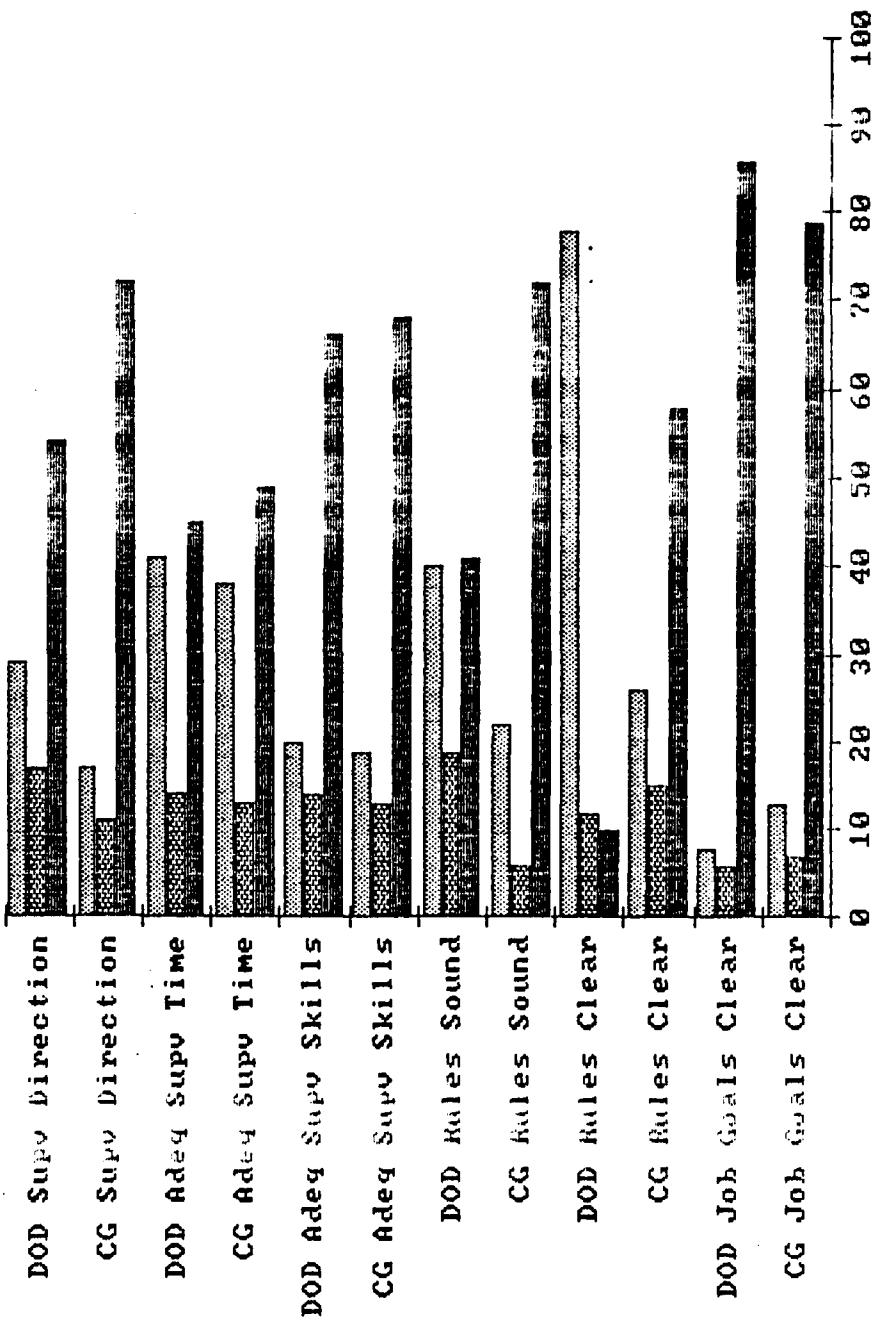
Figure 7.4 Perception That Adequate Guidance Is Received
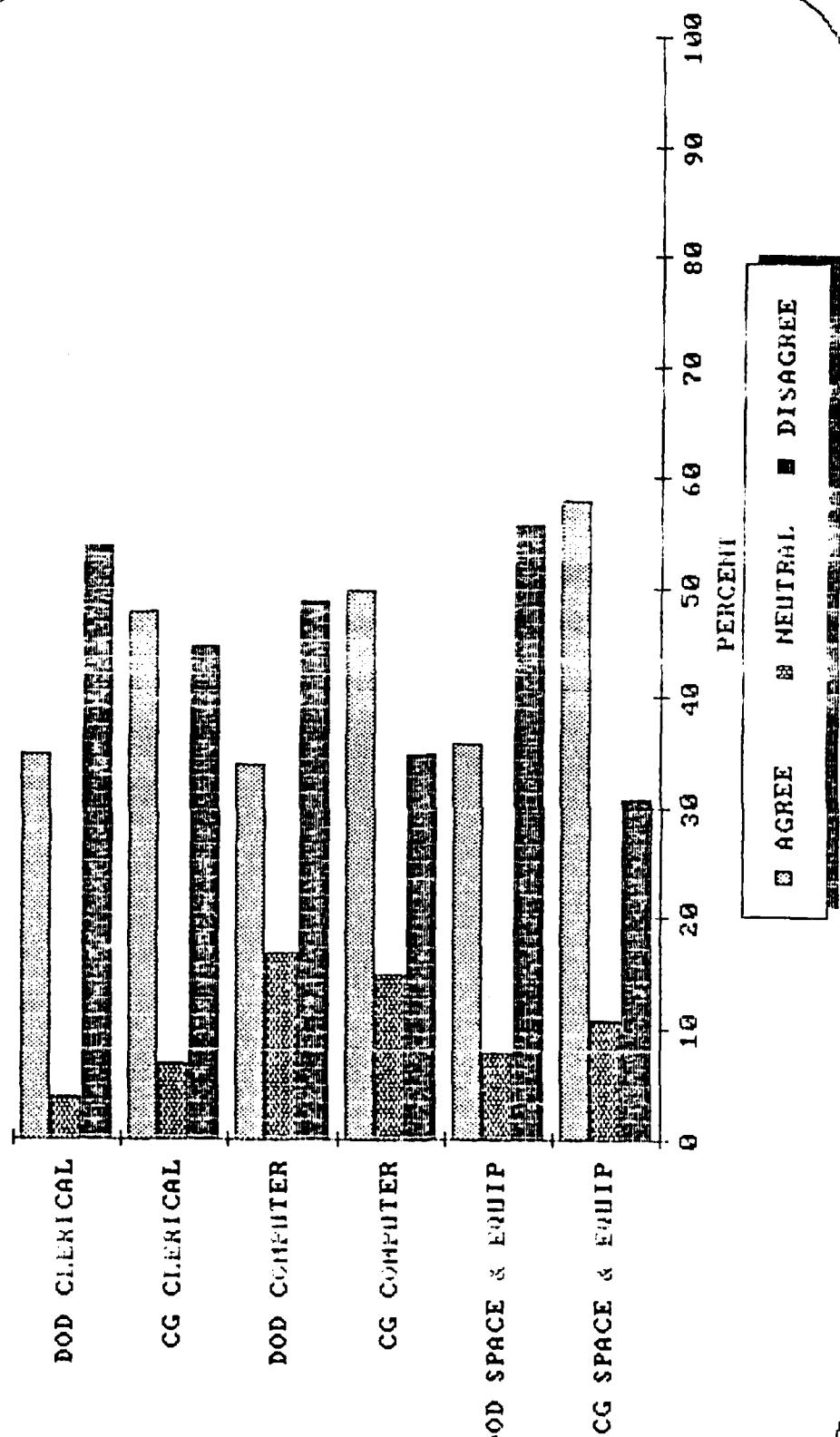
Figure 7.5 Perception That Adequate Resource Support is Provided

challenged. Nonetheless, the results are felt to present some general valid trends, the reader is advised accordingly. The responses from the civilian population are believed to be statistically valid. Figures 7.6 and 7.7 present the military and civilian responses in the same format as the Packard Commission results. Promotions, pay increases and the ability to work independently were the work rewards most valued. Approximately one-third say that promotion opportunities were most influential in their decision to take their present job. Another 27% indicated that the challenge of the job was their primary reason for accepting their present job.

Also important are good working conditions (for civilians) and the opportunity for "choice" job assignments (for the military). Over one-third do not agree however, that there is a direct link between organizational rewards and activities that are important to the acquisition process. This point may also be reflected by the responses to questions concerning the primary organizational goals of the purchasing office. Even though it was not offered as a choice on the survey, almost half of the respondents wrote in that their primary organizational goal was to the classical definition of purchasing: to obtain the right goods at the right time for the right price of the right quality and in the right quantities (i.e. good service). However, one-fourth strongly disagree that the goals and objectives of their office are reflected in the criteria they are evaluated on. Forty-eight percent say that the goals of their purchasing office are not reflected in writing in a policy statement.
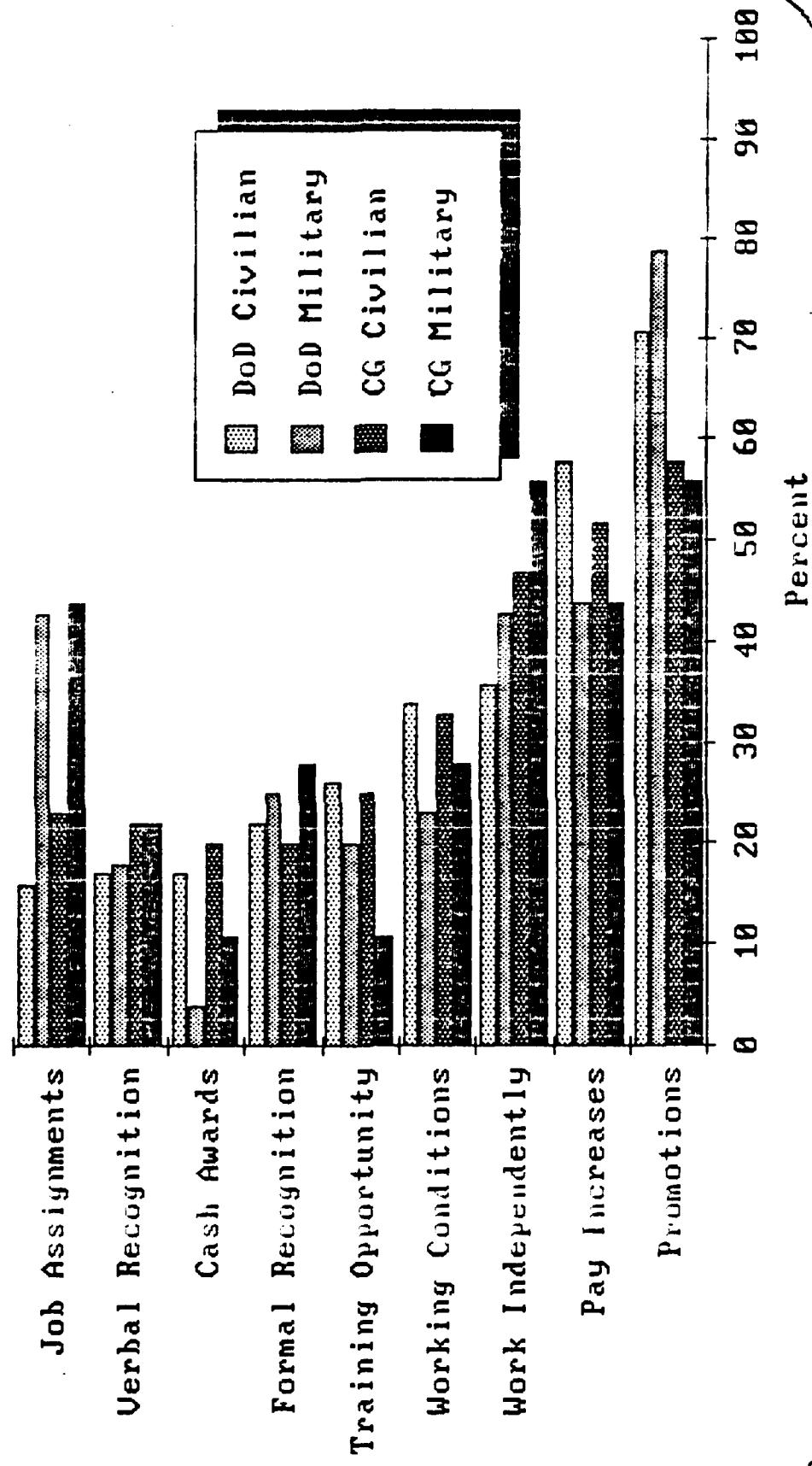
Figure 7.6   Importance of Selected Organizational Rewards

Figure 7. / Importance of Selected Motivating Factors

E. DEMOGRAPHICS OF THE WORKFORCE

Turning now to some demographics on the Coast Guard contracting workforce. Forty-seven percent (of those who filled out the survey) say that they are more qualified than their industry counterparts, while another 40% are neutral on the subject. Forty-five percent feel that a certification examination should be required for contracting series personnel. A large majority (80%) report they are not certified with a professional organization (NCMA, NAPM,...). The survey indicates that the majority of Coast Guard contracting personnel are civilians (78%), with slightly more females (54%) than males. In comparison, the civilian/military mix in DOD is 85/15, with an equal number of men an women. The Coast Guard civilian/military ratio is expected to be slightly closer to that of DOD when the MLCs are figured in. This is based on information received from G-FPM that about 85-90% of the MLC contracting workforce will be civilian. Because civilians make up the overwhelming majority of the Coast Guard contracting workforce, many of the civilian responses pertaining to demographics are presented separately.

Approximately 47% of the personnel responding have six years or less experience in procurement, as compared to 40% in DOD with five years or less (Figures 7.8 and 7.9). The survey shows that only 39% of the Coast Guard's civilian contract specialists have college degrees, with slightly over three quarters of those in business. By way of contrast, in DOD about 54% of the civilian contract specialists have college degrees, but only 28% of those are in business. Forty percent of the Coast Guard respondents indicate having "some college" (1-3 years). Figures 7.10 and 7.11 present these results graphically.

Figure 7.8 Coast Guard Contracting Personnel (All) Years Experience

COAST GUARD CIVILIAN CONTRACTING PERSONNEL YEARS
PROCUREMENT EXPERIENCE
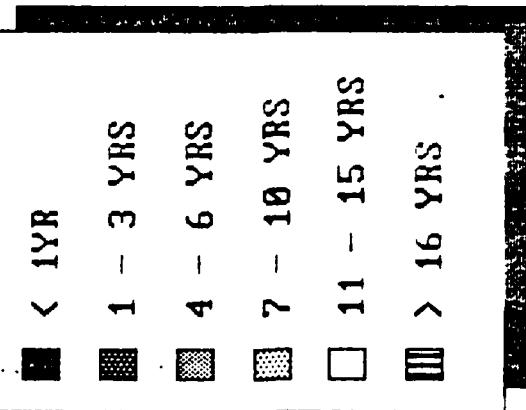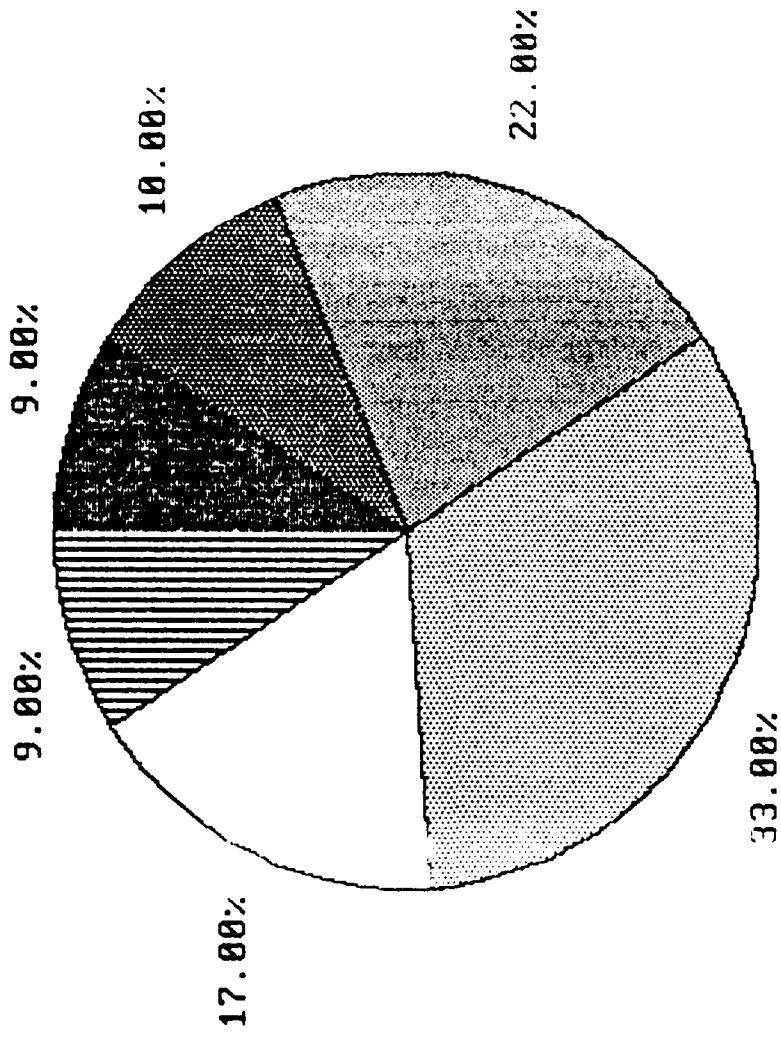
Figure 7.5 Coast Guard Civilian Contracting Personnel Years Experience

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COAST GUARD GS-1102
EDUCATIONAL BACKGROUND

FEDERAL GOVT GS-1102
EDUCATIONAL BACKGROUND

POST GRAD
19%

BA/BS
20%

NO BA/BS
61%

POST GRAD
18%

BA/BS
31%

NO BA/BS
51%
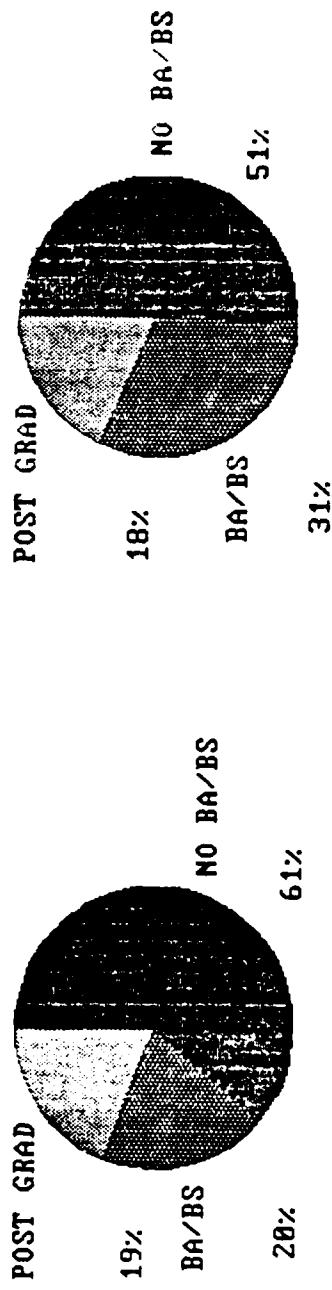
Figure 7.10 Comparison of Educational Backgrounds

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COMPOSITION OF COLLEGE DEGREES IN CG CONTRACTING WORKFORCE

Business
Law
Engineering
Public Admin
Other

77%
18%
2%
2%
1%
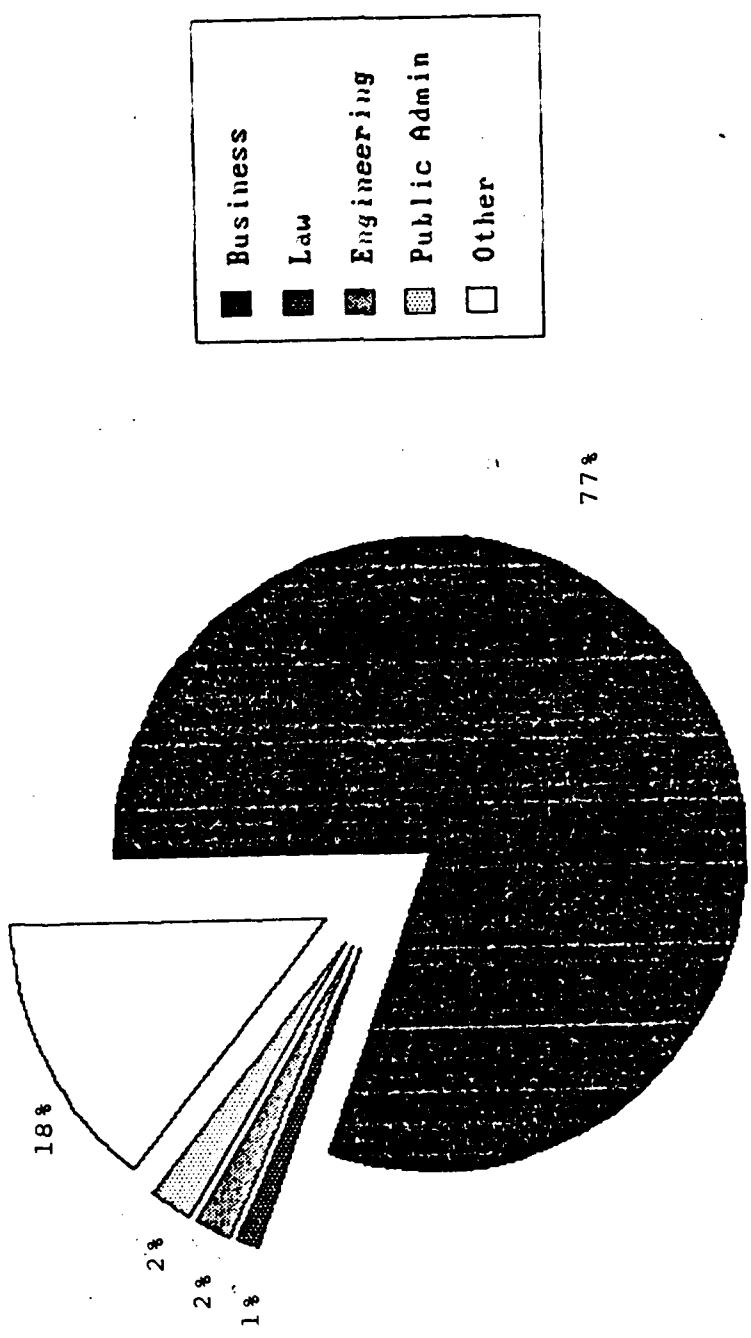
Figure 7.11 Composition of College Degrees in Coast Guard Contracting Workforce

A distribution by rank and grade shows that the largest number of civilians are in the GS 9-12 range and the largest number of military are in the O3/O4 range. Almost half the workforce (48%) is between 30 and 40 years of age (24% 30-35; 24% 35-40), Figure 7.12. The median age is lower than that in DOD. A clear majority indicated that the bulk of their procurement experience is with the Coast Guard (Figure 7.13). Twenty-two percent of the Coast Guard respondents have been at their present job less than one year (Figures 7.14 and 7.15). Nineteen percent of the civilian GS-1102s responding have been at their jobs less than one year, compared to a 9.8% Government wide turnover rate (based on FY 1986 FAI data). Two-thirds say they are satisfied (or very satisfied) with their jobs.

F. SUMMARY

This survey provides powerful support for many of the key evaluations and recommendations to be made in the next two chapters. It is not too surprising that there are many similarities between the Coast Guard and DOD GS-1102 workforces, given the characteristically high mobility this series (GS-1102) has on a Federal Government level. The next chapter takes the data and analysis presented in this chapter and applies it to the Coast Guard's Procurement Career Management Program.

COAST GUARD CIVILIAN CONTRACTING WORKFORCE BY AGE

Legend:
- 25 – 30
- 30 – 35
- 35 – 40
- 40 – 45
- 45 – 50
- 50 – 55
- OVER 55

19.00%
22.00%
17.00%
12.00%
12.00%
5.00%
13.00%
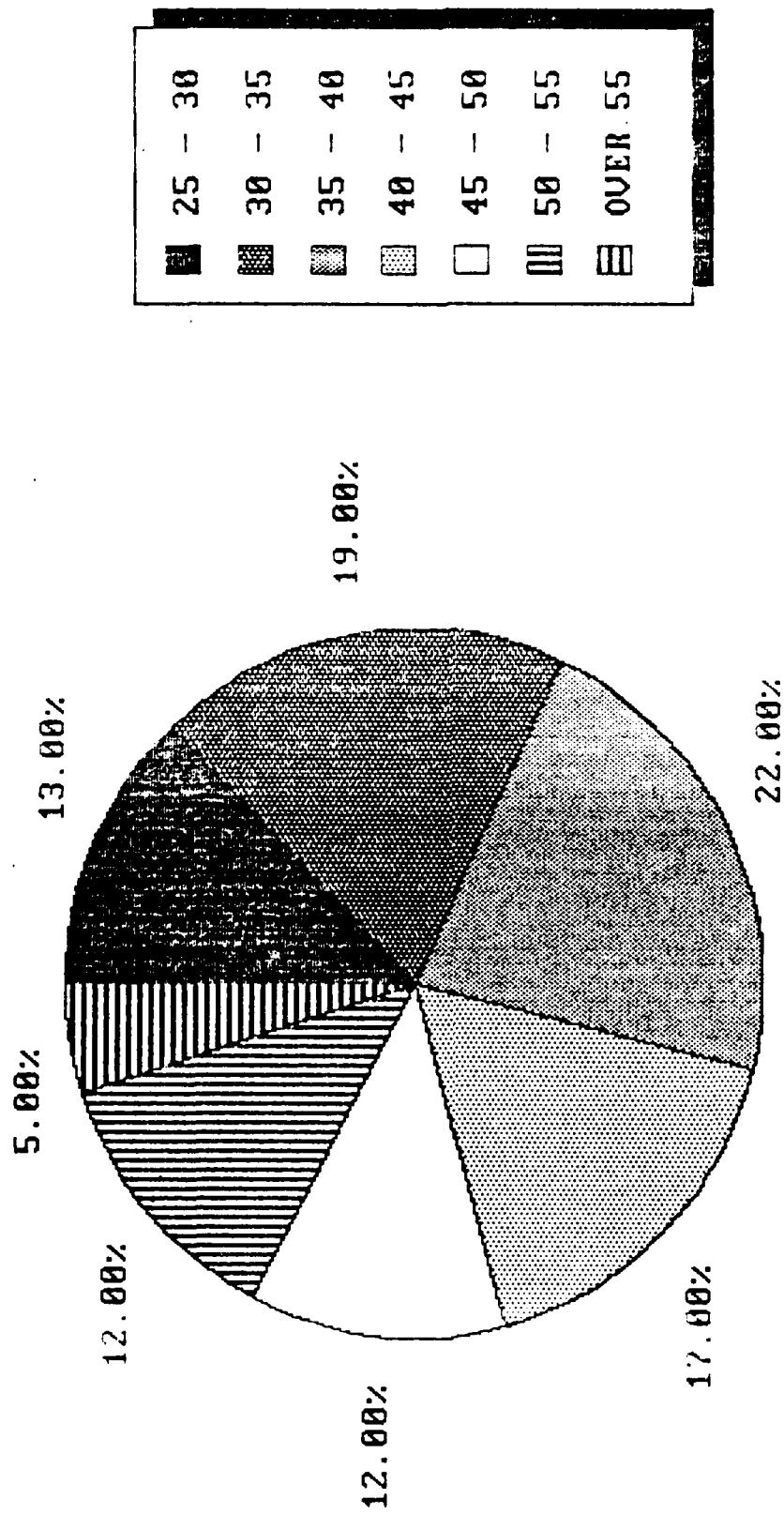
Figure 7.12 Coast Guard Civilian Contracting Workforce By Age

COAST GUARD CIVILIAN CONTRACTING PERSONNEL MOST OF
EXPERIENCE WITH:

OTHER FEDERAL
AGENCY

COMMERCIAL

COAST GUARD

25.00%

2.00%

73.00%
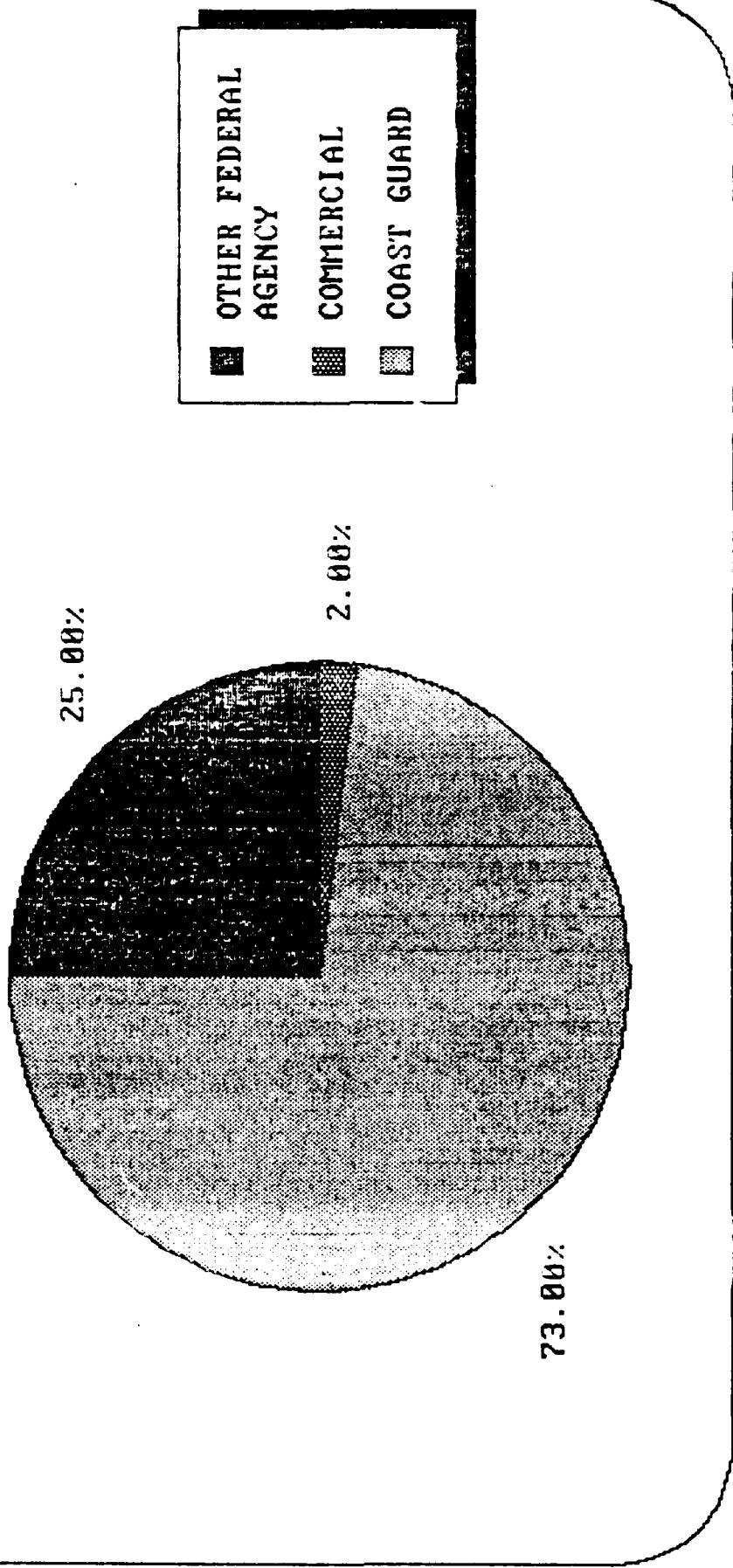
Figure /.13   Coast Guard Civilian Contracting Personnel Experience

DURATION OF COAST GUARD CONTRACTING PERSONNEL (CIV & MIL) AT THEIR PRESENT JOB

Legend:
- < 1YR
- 1 – 3 YRS
- 4 – 6 YRS
- 7 – 10 YRS
- 11 – 15 YRS
- > 16 YRS

49.00%
22.00%
1.00%
6.00%
7.00%
15.00%
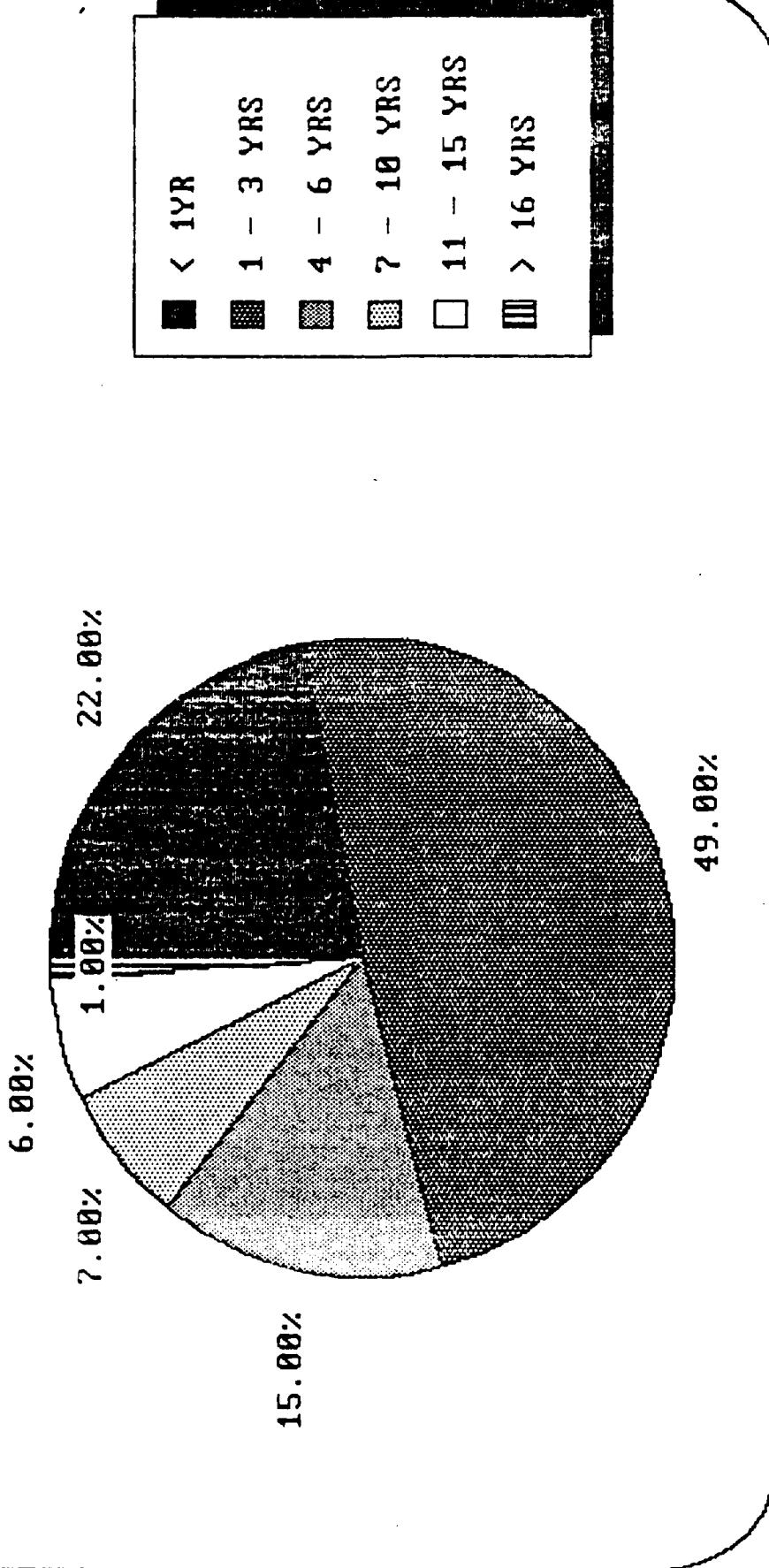
Figure 7.14 Duration of Coast Guard Contracting Personnel (All) at Their Present Job

DURATION OF COAST GUARD CIVILIAN CONTRACTING PERSONNEL AT THEIR PRESENT JOB

Legend:
- ■ < 1 YR
- ▦ 1 - 3 YRS
- ▦ 4 - 6 YRS
- ▦ 7 - 10 YRS
- ☐ 11 - 15 YRS
- ▤ > 16 YRS

19.00%

48.00%

2.00%

8.00%

9.00%

14.00%
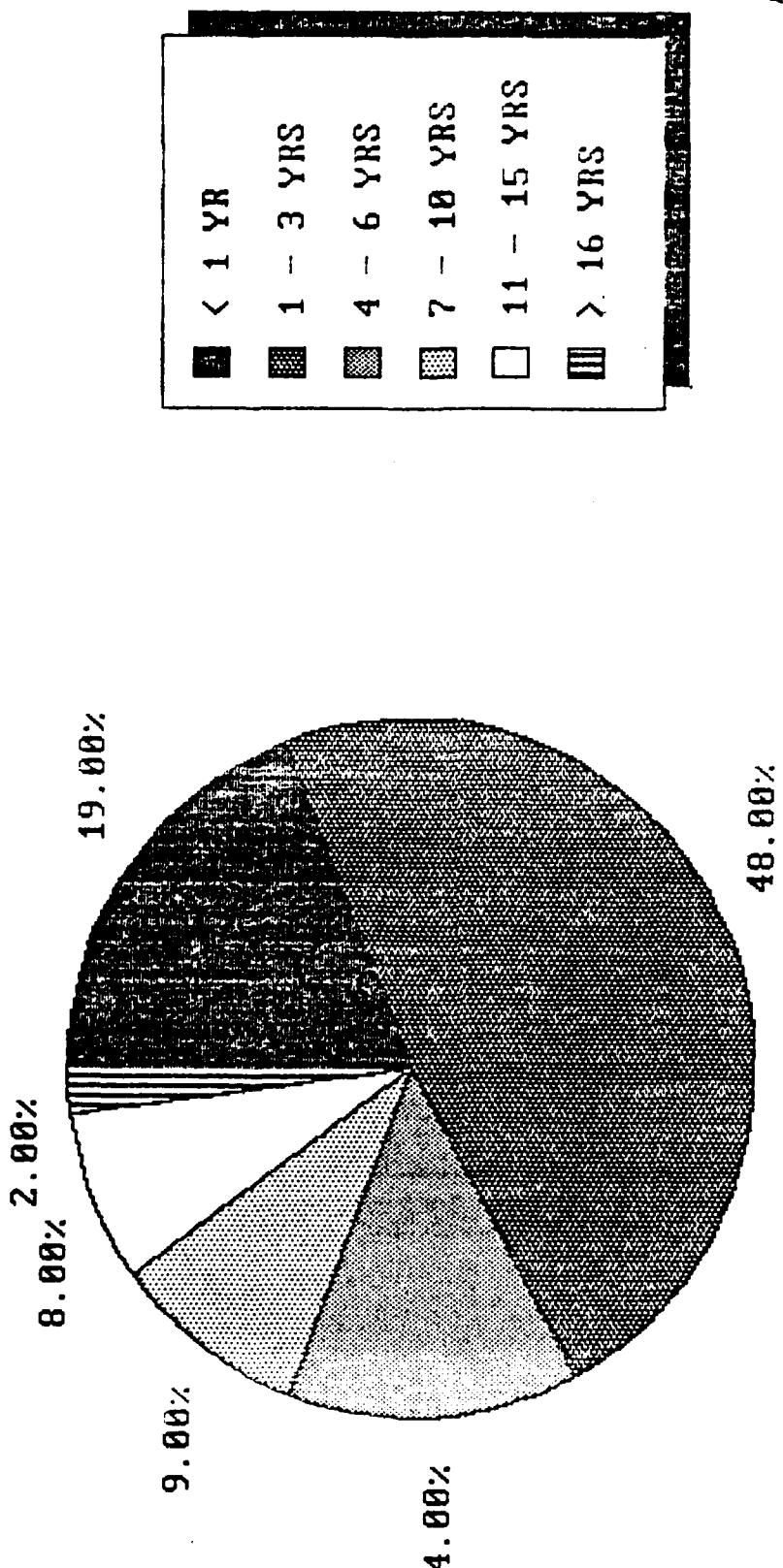
Figure /.15   Duration of Coast Guard Civilian Contracting Personnel at Their Present Job.

VIII. PROCUREMENT CAREER MANAGEMENT IN THE COAST GUARD: DISCUSSION OF RESULTS

A. INTRODUCTION

In the June 1986 follow-up to the LMI and CG In-Hse Acquisition studies, the GAO reported that:

> Where as the Coast Guard has made progress in reorganizing its acquisition function, little progress has been made in...addressing the training deficiencies cited in the two studies. [Ref 42:p. 2]

Where does the Coast Guard stand another year later? What are the real training needs? The purpose of this chapter is to present an analysis of the Coast Guard's procurement career management program using the survey data, interviews and observation.

This final step, to be taken before the development of a specific plan of action, consists of a discussion of the data presented to date along with an integration of data on specific training wants and needs developed from several different surveys (including the one authored in this study); and an examination of: Acquisition Management Reviews (AMRs), DOT Inspector General (IG) Reports; GAO Audits, Coast Guard Procurement System Certifications; and interviews with Coast Guard & DOT procurement personnel at all levels.

In general, the GAO evaluation in June 1986 of the Coast Guard Procurement Career Development Program remains valid. The Coast Guard procurement training effort is still being conducted on an "ad hoc" basis. The areas to be discussed are the Coast Guard: (1) Procurement Career Management System, (2) the Contracting Officer Selection and Appointment System, (3) Performance Appraisal and Rewards, (4) Recruitment and Intern Programs, (5) Classification and Position

Management, (6) Procurement Research and (7) Procurement Career development--the training and education effort.

B. THE COAST GUARD PROCUREMENT CAREER MANAGEMENT SYSTEM

The Coast Guard has no. procurement career management program for either its civilian or military personnel. Within DOT, the Coast Guard is unique among the modes for having the mix of civilian/military workforce.

1. Military Career Management

From the military side of the house, the survey revealed a significant amount of dissatisfaction among military contracting officers for a few key reasons. The primary concern is whether the Coast Guard is going to establish a legitimate career path for officers in acquisition. This was one of the recommendations of the LMI study but the Coast Guard response is that the Coast Guards' small size prohibits devoting a career specialty to the procurement field.

Traditionally military officers have attempted to develop and maintain competence in several distinct fields while shifting intermittently among them. For most, their early years are spent in purely military functions. This pattern is changing somewhat as officers are now being involved in the procurement field earlier in their careers. The role the military officer must play in the Coast Guard is not argued here so much as the point made that increased consideration of the increasing specialization required in the contracting field significantly affects the ability to drift in and out of contracting billets every several years. It is a dynamic area that requires at least a cursory involvement in the "off years" and dedicated training upon reentry.

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Additional concerns have been voiced by military officers who serve as program managers concerning inadequate resource support and policy guidance, this may be an area for further research--it was not explored in this thesis.

2. Civilian Career Management

The procurement career management for the civilian workforce reveals a marginally different story. Although there is no civilian procurement career management program for Coast Guard personnel, there are some efforts in DOT in this direction. The DOT is developing a department wide Career Management Program plan. The draft of this plan was pieced together in late of 1986 by the DOT Administrative Management Council Members, an ad hoc group representing each of the modes. The plan is a step forward for the Department however there are several problems/concerns that warrant comment.

The first concern is that the plan has not had substantive and substantial field input. Even through drafts of the plan were circulated to each of the Administrative Management Council members, very few people at the DOT procurement conference were aware of its development.

The second major concern is that although this plan will represent an acceptable starting point for a Coast Guard procurement career management program, it will not alleviate the need to develop implementing direction and to tailor it to our service (i.e., we can't just accept it at face value).

3. Procurement Career Management System Mechanisms

a. Instruction

In Chapter VI, it was demonstrated that the instructions that implement a career management program must be tailored to each agency, an

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enabling directive that is too generic becomes unenforceable. COMDT INST M4200.19A (CGAP) which establishes the Warrants Program, is a step towards a career program directive. It establishes required training and acceptable courses to satisfy that training. The Procurement Career Management Instruction would incorporate the Warrants Program along with instructions on the duties of the procurement training coordinator, the career board, the use of IDPs, etc. At this time the Coast Guard does not have a directive this encompassing. The reason cited is that since DOT is putting one together we will wait on them, the researcher would agree with this strategy--as long as the Department is making demonstrated progress on the program.

b. Procurement Career Manager/Training Coordinator.

There is no procurement career manager with Coast Guard wide responsibilities. This function, when it is being carried out, is done essentially by each individual contracting supervisor.

The administration of the Coast Guard wide procurement training program is a collateral duty of the O-3 in G-FPM. This officer has a myriad of other duties (including acting assistant branch chief at this time) which detract from his ability to devote the necessary attention to Coast Guard wide procurement training efforts. Many of the improvements in procurement training the Coast Guard has made within the past year, against numerous organizational hurdles, are the direct result of the tenacity of this individual and the support of his branch chief. Reports from the field indicate that within the past year or so, FPM seems to be more responsive to their training needs. Nonetheless, the overall prosecution of procurement training remains on a "catch-as-catch-can" basis. When it "appears" to FPM that a significant

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need exists for a certain type of training then FPM will react and attempt to arrange a means to satisfy it.

The Office of Acquisition has an O-3 assigned as the Training Officer for Headquarters Office of Acquisition, as his primary job. A training plan for the Office of Acquisition has been "in the works" since just after the office was formed. Although progress has been slow, the plan is sound, with the exception that a lot of time has been spent on creating a database for training sources that is not really necessary. The establishment of a full time position for the Office of Acquisition seems to be a bit of suboptimization in view of the fact that the Coast Guard wide responsibility is only a collateral duty (which drastically needs full time attention) and the general training plan is applicable Coast Guard wide. Consider additionally that G-FPM often arranges the procurement training for G-ACS.

c. Procurement Career Management Board

The Coast Guard has no procurement career management board. The DOT Administrative Management Council is functioning as a Department wide quasi-Career Board. It is clear however from the experiences of the other agencies that a viable procurement career board is a necessity to a good program. That board must have representative impact from throughout the service. There is no programmed or institutionalized provision for systematic feedback on such concerns as applicability and quality of training or problems peculiar to the contracting field in general. The review of the agenda's of the other agencies' functioning career boards supports the requirement for a coordinating group of some sort.

d. Acquisition Personnel Management Information System

        Even if the Coast Guard had a procurement career board, there
is no way to provide that body with the information they would need to
implement decisions and follow up actions. The Coast Guard is not alone
as deficient in not having a useable acquisition personnel MIS. The need
for an acquisition personnel MIS has been demonstrated throughout this
research and really driven home when this author was unable to readily
obtain information on the names and locations of contracting personnel to
send surveys to and when the actual number of Coast Guard GS-1102s could
not be provided with confidence.

        Any workforce analysis, including short term and long term
goals for changing the workforce will require an MIS. The survey results
indicate a wide range of comments and opinion on the applicability of
training that Coast Guard people have completed. Yet, there is no
mechanism for monitoring training success, analyzing past trends and
forecasting future needs. A good example of the need for an MIS is with
the series of procurement courses that FPM has been managing. There is
no real hard data or mechanism to provide that data on who needs what
type of training, etc. It is just "known" that a need exists for certain
types of training, however "gut-feelings" are tough to schedule, tougher
to budget and almost impossible to support (in the face of budget cuts).

C. PERFORMANCE APPRAISAL AND REWARDS

    In Chapter VI the use of Individual Development Plans was discussed
as a means of complying with the Civil Service Reform Act of 1978.   A
valuable use of the IDP is as an input to the determination of training
needs as well as a road map of career development for the acquisition

professional. The Coast Guard does not use IDPs. Interviews with procurement supervisors, particularly in the Coast Guard, support a need for IDPs. The survey data also support this need as a mechanism or "contract" if you will, between the supervisor and employee about their training needs, job assignments and general career development. As noted in the previous chapter, about one-fourth of the workforce expressed dissatisfaction over supervisor--employee assessment of training needs. The proper use of an IDP can facilitate the required communication; it is of course only an assist mechanism and not a substitute for just plain good management practice. IDPs can be used to substantiate the training needs, rather than relying on "guesstimates".

D. CLASSIFICATION AND POSITION MANAGEMENT

Chapter VI also noted that classification and position management is an area often overlooked by Government procurement managers. Both the LMI and Coast Guard in-process studies identified <u>inferior grade structure</u> as a problem for Coast Guard procurement positions. The significance of this as a problem is reflected in the survey data as well. With seventy-five percent of the workforce at their jobs less than six years and yet seventy-eight percent indicating the Coast Guard as the bulk of their procurement experience the conclusion reached is that the Coast Guard is where people "cut their teeth" in acquisition prior to moving to another agency. An annual turnover rate over twice that experienced Government wide would also support this conclusion. The survey data compare favorably with a twenty-five percent turnover rate estimated by G-FPM on RCP-881 87.

Further indications that inferior grade structure may be a problem is the analysis of the survey data reflecting the workforce opinion on the

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importance of selected organizational and motivational rewards. Pay increases and pay and benefits were ranked consistently as important by the workforce. With the advent of the FAR, Federal Contracting people are readily marketable anywhere in the Federal establishment. It used to be that years of experience at GSA (for instance) meant nothing to the Coast Guard (or vice versa), now the experiences are more interchangeable. So if the grass is a lot greener on the other side....

Support for this concern through interviews confirms that it is a service wide problem. Fully 90 % of the Coast Guard procurement supervisors interviewed indicated that inferior grade structure most affected their turnover rate. Two Coast Guard Contracting Chiefs of Procurement, on opposite coasts, had very similar comments concerning the adequacy of procurement position grade structures.

The big reason for our turnover is the Coast Guard's grade level structure is lower than the others, especially when one can walk across the street with less responsibility as a GS-12 and work for the Navy.

A similar comment by the other supervisor reiterates this concern:

You're preaching to the choir on grade structure and training to go elsewhere. Inferior grade means we are hiring people who are not qualified. Grade structure must be our first priority.

The next element of the Coast Guard procurement career management system to be addressed is the contracting officer selection and appointment system. The relatively new Warrants Program fits the bill quite well. It lists acceptable courses however there is no overall game plan for accomplishment. G-FPM's monitoring is the type of quality control measure that is needed.

E.   COAST GUARD RECRUITMENT AND INTERN PROGRAMS

1.   Coast Guard Procurement Intern Program

Prior to selecting and appointing contracting officers they have to be recruited.   Recruitment and intern programs have been addressed as the pipelines for supplying agencies with qualified personnel.   Although the LMI study recommended the Coast Guard establish an intern program, DOT had indicated that they are considering implementing a program department wide and have asked the Coast Guard not to establish its own program.   Given the experiences of some of the other agencies, such as NASA in establishing an intern program. it would be wise to let the Department take the lead on this one.

2.   Coast Guard Procurement Recruiting Program

Because of the high turnover the Coast Guard is experiencing, recruitment takes on an added importance simply because we are hiring so often.   The survey data reflecting the educational levels of our contacting personnel suggest that we can do a better job of recruiting people.   The percentage of Coast Guard civilian contracting personnel without college degrees is well over half the workforce and ten percent higher than DOD.   While a degree is not yet a requirement and debate continues as to whether it really is necessary, the general movement within the Federal Government is towards requiring or a least favoring college degrees.

This is an area where the Coast Guard can become proactive and anticipate the eventual requirement of a college degree for contacting personnel (even if it is 3-5 years away) and recruit accordingly.   The survey data, AMR, DOT IG and GAO reviews all support a need for Coast Guard personnel to exercise better business judgment.   It is the author's

opinion that the development of good business judgment is facilitated by a secondary level education, either degree or at a minimum some college courses (ideally one would develop "good business judgment" through the process of working in industry--this is what the Air Force Training With Industry Program is about). The survey indicates the Coast Guard workforce supports the need for some college level training.

F. PROCUREMENT RESEARCH

The area of procurement research, as an element of a complete career management program, will be addressed prior to jumping into the discussion on career development through education and training. The status of procurement research as a consistent activity in the Coast Guard is marginal. Again, this may appear to be so abstract as to be only "ideally" viable under a "perfect" organization. This is not the case however, procurement research involves (among other things) staying on top of current initiatives, reports, etc. in the procurement world. This researcher was surprised to learn that only two Coast Guard persons interviewed in connection with this study were aware of GAO report 86-161BR "Coast Guard Acquisitions--Status of Reform Actions". The information in a report like this is important and valuable for all Coast Guard contracting people to know.

Procurement research involves the identification and dissemination of material like this. It has been demonstrated that many agencies are willing and have information to share that can be of extreme benefit to the Coast Guard. In general, there is no active input of thesis topics or research papers for Coast Guard Acquisition and Contract Management majors, this is a significant resource that is not being utilized.

G. PROCUREMENT TRAINING AND EDUCATION

The status of the Coast Guard procurement training and education effort is the next subject. The above cited GAO report states that: "...the Coast Guard is approving courses on an as-needed basis and is not currently working from an overall training plan" [Ref. 42:p. 28]. One year after this report, the situation remains unchanged. The lack of an overall plan for training accomplishment is essentially at the heart of the complaints about the Warrants Program discussed earlier.

One could say the Coast Guard procurement training program is conducted on the "availability" theory--if there is availability of the individual, availability of the quota, and availability of the funding coexisting at once. If one of the preceding availabilities happens to be absent, then the training is not accomplished. This is not to say what the cause is, be it scarce resources, supervisor interference, etc. In any case, there is no mechanism to be proactive in this area to forecast training needs and therefore pursue them in an orderly fashion. One certainly cannot fault G-FPM for operating in this manner; between a lack of resources (manpower, dollars and time) and the continual parade of organizational "improvements" (the MLCs being the latest and a Headquarters reorganization just around the corner), the fact that they have been able to do as much as they have is notable.

H. REASONS CITED FOR NOT TRAINING

An examination of the reasons for not accomplishing procurement training on a consistent basis is warranted prior to the discussion of the effects of an inadequate program. Almost half the procurement workforce has not had the training required for their present position.

The GAO report on the Status of Reform Actions states that "because of budget constraints...the Coast Guard is not working from an overall training plan" [Ref. 42:p. 24]. The LMI study cites several explanations:

> ...including the limits on time and funds available for training and the lack of opportunity for supervisors to plan and develop individual training and career development programs for their contract specialists. [Ref. 1:p. 2-19]

Another source states offers the following excuse:

> Some agencies have established excellent programs for training procurement personnel--even those agencies with successful programs, however, have not taken full advantage of them because training funds often fall short of the need and supervisors have not been held sufficiently accountable for employee development. As a result many procurement specialists have not been given needed training. [Ref. 81]

Interviews and survey data indicate all of these reasons (time, funds, supervisor, quota,....) have been applied to the lack of a consistent Coast Guard procurement training effort, with lack of time and funds leading the list.

Additional reasons cited are:

- Training is too generic--it seldom addresses the
  particular problems of the activity.
- Training seldom addresses emerging specialty issues.
- Training materials are usually unsuitable reference
  materials.
- Training materials outdated, difficult to use.
- Training quotas are not received soon enough in advance to properly
  schedule attendance.

The following comments are taken from several of the most recent Procurement System Certifications completed October 1986:

> The procurement organization's structure makes the development of a capable workforce difficult because the absence of a contract specialist, to attend formal training, creates an extreme hardship on those left to administer that specialist's workload. [Ref. 43]

> Recent personnel turnover has indicated an exercise in futility in providing formal training to contract personnel since the hardship endured by the department while personnel are absent for training is

compounded when the fully trained person is then able to successfully compete for higher graded vacancies elsewnere in the Government. [Ref. 44]

Opportunities for continued training for the procurement staff should be made available. To accomplish this we need to know who is responsible for providing training funds; is this G-EAE's responsibility, G-FPM's or ...? Assuming this issue is clarified, we need to know timely information on what classes we may be considered for. I do not know if we have been considered in the past when available class spaces have been allotted. [Ref. 45]

Although severe fiscal restraints are indeed an issue this is not the primary reason for the lack of a good procurement training program. The primary reason for the failure of any procurement training program investigated is the lack of active top level advocacy and support, this support must come from the Head of the Agency him/herself. In the case of the Coast Guard, that advocacy needs to come from the Commandant and Chief of Acquisition. Every single successful agency procurement career management program cited top level support as the number one ingredient to their success. Mr. Lawrence of the VA made the point by his statement: "at the VA it has been enormously difficult to create jobs, yet in the face of all the cutbacks we got the permanent full-time GS-13 training officer". [Ref. 46] Another example of a good program cited earlier in this report is the DOE. The Director of the DOE procurement training program credits their success to an active advocacy by the agency's head. This is confirmed in GAO report GGD-86-98BR "Training Budgets--Agency Budget Reductions in Response to the Balanced Budget Act" in which:

The DOE reported that no cuts would be made in its $1.37 million headquarters training budget because of the direct relationship between planned training activities and its mission. [Ref. 47:p. 10]

One member of the ACE-II Study interviewed put it another way:

Without the personal support of a flag (admiral) it just won't happen
(training). If you've got a new star (admiral) all the better. It has
to be a seed he wants to see sprout during his 5-6 years as a flag. A
guy like Admiral Joe Sansone in the Naval Supply Corp--an 0-6 just
doesn't have enough horsepower.

Appendix J contains a FY 89 Position Paper which is representative of
the problems encountered in funding and scheduling training without
consistent, firm commitment to this training by the Coast Guard.

Lack of funds, quotas and supervisor approval have all been indicated
as reasons for not training. However these arguments have all been heard
before. Appendix K is a list of "training problems perceived", that was
compiled in DOT and distributed at the DOT Procurement Conference. There
are no surprises on the list.

However, consider that at least twice in 1987 to date, even when
training opportunities were announced well in advance, received and
assigned...G-ACS did not utilize them. In each instance there were
numerous individuals identified as needing the training (as many as forty
for fifteen slots). In one case there were four cancellations on the
Friday before the Monday that the class was due to start, so that the
quotas could not even be reassigned. The author is not so naive to think
that occasionally operational commitments preclude attendance, however
the these incidents point more towards the fact that the training is not
assigned a high priority. Several years ago the Coast Guard perceived a
problem with the qualifications of its military personnel manning the
ships, planes and stations. The Commandant at the time, Admiral Jack
Hayes, said that "training is our number one priority" and with an active
advocacy the Coast Guard operational training base was improved and units
were attaching the high importance to training that it deserves.

I. SUMMARY

To summarize the Coast Guard procurement career management program and procurement training and education effort: it is not established as a high priority, it is too subject to the whims of individual supervisors, no consistent mechanism exists to document and present workforce needs and desires to management and G-FPM's resources are spread thin wherein the responsibility for procurement training Coast Guard wide is a collateral duty.

Once a military officer completes a successful contracting tour, he becomes rather readily marketable because of his education, functional training and experience. Without a career path such as the other services have, the military contacting officer may become increasingly involved in the "revolving door" syndrome.

There is a mixed review on the applicability and effectiveness of training received, however lack of follow-up to training completion prevents any improvements. The Warrants Program is well received--the task now is to go out an provide the required training in an effective, efficient and organized manner. The Department of Transportation is seen as becoming more active in procurement career management, this interest is necessary if any Coast Guard specific efforts are to be supported outside the service. The next chapter will combine the data and interpretations from this chapter and Chapter VII, to identify the Coast Guard's "real" procurement training needs.

IX. PRIORITIZING THE COAST GUARD'S PROCUREMENT TRAINING NEEDS

A. INTRODUCTION

So far many of the factors attributable to a poor procurement career management program have been addressed on a general organizational level. An important link between procurement training, career development, and efficient performance has been validated by the questionnaire. But it isn't enough for this researcher to say from the academic perspective that we simply need more procurement training. A valid analysis would not be complete without an identification of the "real" training needs, or put another way: what factors indicate a need for procurement training?, what problems are we experiencing that can be directly attributable to a lack of adequate procurement training?

B. FACTORS INDICATING THE NEED FOR PROCUREMENT TRAINING

Indications of performance effectiveness can be obtained by analyzing the survey responses of the Coast Guard contracting personnel's perceptions in four areas:

(1) direction and guidance,
(2) education and training,
(3) motivation and rewards, and
(4) resource adequacy.

The lack of any one of these factors in the work environment does not in itself, preclude adequate performance. It can however, significantly decrease optimum performance. It should be clear that management focus on factors that are not meeting the workforce needs will maximize any efforts to improve the Coast Guard acquisition function.

1. Direction and Guidance

To be fully effective, anyone, not just contracting personnel, needs to understand the basic goals of their work and how to accomplish those goals. Analysis of the research indicates somewhat mixed results but a general conclusion can be drawn that Coast Guard contracting people are aware of the basic goals of their work. The significant difference of opinion between the DOD procurement workforce and the Coast Guard procurement workforce concerning the "positive role that rules, regulations and policies play" is not readily explained. Perhaps the explanation is simply that the Coast Guard is not as bureaucratic as DOD. Another possible explanation is that Coast Guard personnel have a "checklist attitude" to contracting, although given the other similarities to the DOD workforce there is no further support for this conjecture. The areas which hold specific concerns for Coast Guard investigation are in the development of a servicewide deskguide and an evaluation of the time supervisors have to "supervise".

2. Motivation and Rewards

From analysis of the survey results it appears that the Coast Guard is able to offer challenging and interesting jobs but the perception is that the pay is not commensurate with the level of responsibility and the expected opportunities for advancement are not realized. In general, one can say that the personnel in the Coast Guard procurement workforce are satisfied with their jobs, however it is significant that over one-fourth say they are dissatisfied (10% more than the annual turnover rate).

3. Resource Adequacy

Coast Guard contracting personnel are middle of the road on their opinion as to the adequacy of resource support. Several written comments highlight a need to move into the computer age. It is known that Headquarters is in the midst of a procurement specific ADPE buy, the details of which are not known to the researcher at this time. Only about half of the contracting workforce use a computer, so there is certainly room for improvement.

4. Training and Education

As the primary emphasis of this thesis several aspects of this issue have been addressed. Concerns over such items as adequacy of the training received, the educational requirements of the job and the educational background of Coast Guard contracting personnel have all been investigated. The analysis shows that the Coast Guard procurement workforce is relatively inexperienced. The survey and interview data tend to support the conclusion reached by the LMI study that: "the combination of high turnover and lack of a solid training program are large influences on high PALT (Procurement Administrative Lead Time) and low productivity." [Ref. 1:p. 2-25] This research also tends to support another conclusion reached by LMI that "inadequate opportunities for formal training are one of the main reasons for heavy turnover". [Ref. 1:p. 2-24] It is difficult to say that lack of formal procurement training is a "main reason" for heavy turnover, however with twenty-nine percent indicating they feel their career development is being hindered by lack of adequate training, it certainly can be identified as a contributing factor.

C. IDENTIFYING SPECIFIC TRAINING NEEDS

The answer to the identification of the specific procurement training needs is targeted with a double-barrel approach. The first method used to identify training priorities, needs, wants, etc. is through the survey/interview approach where the questions are put directly to the workforce: "what training do you want?". The second approach is an examination of the documented problems in AMRs, IG reports and GAO audits for trends that indicate problems that can be corrected or minimized through better training. Coupled with this approach is the question: "what problems do you see caused by a lack of training?". In other words, we are searching for a cause and effect relationship and not just simple correlation.

1. Surveying the Workforce

Along with the interviews of procurement personnel (journeymen, supervisors and policy folks), and the survey issued as part of this research; the results of two extensive surveys of the Federal Government's contracting and procurement specialists (GS-1102s and military equivalent) was utilized. Because a good correlation between the DOD procurement workforce and the Coast Guard procurement workforce has been established in the previous chapter, a valid application of the data from the following two surveys should be feasible. In 1979, the FAI surveyed 48% of the Government's contract and procurement specialists (not just DOD) to identify and prioritize the basic and intermediate tasks that all personnel who specialize in the solicitation and award of contracts ought to be trained in. A second survey conducted in 1986 for the ACE-II Study used 392 entry level and 499 intermediate level respondents from the DOD. As supervisors in the field are the real "customers" for well trained members of the acquisition workforce, their

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views on training and education should weigh heavily in the design of a model curriculum.

a. FAI Survey

The following tasks are identified from the 1979 FAI survey as requiring a high degree of training emphasis in any training program (formal and OJT combined). The tasks are identified on two levels: basic and intermediate. Basic is described as the tasks commonly performed at the GS 5-9 level under conditions that normally prevail at those grade levels. Intermediate tasks are those commonly performed at the GS 11-12 level under the conditions that normally prevail at those grade levels. The tasks were graded as low, moderate and high in importance; only the tasks that were graded high are presented:

(1) Tasks For Basic Training.

- Analyze price proposals; determine reasonableness and fairness of proposed prices.
    - Compare price quotations submitted.
    - Compare prior quotations and contract prices with current quotations for the same or similar end items.

- Develop negotiation objectives, strategy, tactics, and document in the prenegotiation memoranda.

- Conduct negotiation sessions with offerers in the competitive range.

- Analyze proposed elements of cost to develop prenegotiation position on the overall price proposed (given past contracts for same item or with same firm; other contracts for comparable items; the technical evaluation memorandum; data on overhead rates from DCAA; data on labor rates from DCAS offices or copies of labor agreement; DOL indices; etc.).

- Determine method of procurement, including simplified purchasing methods.

- Determine competitive range.

- Determine and develop special provisions to be included in solicitations (subtask of preparing IFB and RFP).

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- Determine whether the procurement should be from the sole or single source.

- Determine allowability of mistakes in bids.

- Determine responsibility of proposed contractor.

(2) Tasks For Intermediate Training.

- Conduct negotiation sessions with offerers in the competitive range.

- Develop prenegotiation positions (ranges) on major elements of costs.

- Determine need for, request, and review preaward audit reports.

- Determine the competitive range.

- Review sole or single source recommendations and justifications of the requiring activity.

- Review proposal evaluation criteria.

- Determine whether the procurement should be from the sole or single source.

- Develop negotiation objectives, strategy, and tactics; document in part in the prenegotiation memoranda.

- Conduct/participate in fact-finding sessions with representatives of proposed offerers.

- Determine and develop special provisions to be included in solicitations.

- Determine allowability of mistakes in bids.

- Analyze price proposals; determine fairness and reasonableness of prices.
    - Compare price quotations submitted.
    - Compare prior quotations and contract prices with current quotations for the same or similar end items.
    - Compare with rough yardsticks such as dollar per pound.
    - Compare with prices from published lists issued on a competitive basis, published market prices of commodities, and similar indicia.
    - Compare with Government price estimates submitted by the requiring activity with purchase request.

- Develop requirements with representatives of the requiring activities, maintain, and update Advanced Procurement Plans.

b. Data from the ACE-II Survey

The ACE-II study conducted a training emphasis survey which was completed in 1986. This survey was more detailed and divided the choices into 177 separate tasks which were rated on a scale from one to nine. Again a distinction was made between basic and intermediate level priorities. The following are the tasks assigned <u>definite high emphasis</u> for any training program:

(1) <u>Basic Level Task Priorities</u>.

- Use of small purchase procedures.

- General knowledge of the procurement: (mission, system, process, organization, management, statutory/regulatory).

- Complete and issue RFQs, IFBs, and RFPs.

- Determine the lowest total price bid and whether the lowest price is fair and reasonable.

- Determine responsiveness of lowest bidders.

- Analyze price proposals.

- Develop negotiation objectives, strategy and tactics; document in the prenegotiation memoranda.

- Determine and document method of procurement.

- Analyze proposed elements of cost to develop prenegotiation position (ranges on major elements of cost).

- Identify suspected mistakes.

- Prepare and review contracts.

- Select and justify type of contract.

- Determine allowability of late bids or proposals.

- Request verification of offers, calling attention to suspected mistakes.

- Conduct negotiation sessions in sole source procurements.

- Determine whether other than full and open competition is justified.

- Determine that purchase requests from the requiring activities are sufficient for the procurement.

- Process mistakes in offers.

- Determine allowability of mistakes in offers.

- Conduct negotiation sessions with offerers in competitive range.

- Establish competitive range.

- Prepare post-negotiation memoranda (including a determination of the fairness and reasonableness of the proposed price).

- Determine and document responsibility of proposed contractors (including Certificate of Competency).

- Prepare or issue amendments to solicitations.

- Prepare justifications for other than full and open competition where required.

- Negotiate and issue changes or modifications to contracts.

- Synopsize proposed procurements.

- Request best and final offers.

- Conduct/participate in fact-finding sessions with representatives of proposed offerers.

- Determine the necessity and obtain certificates of current cost and pricing data.

- Dispose of late bids.

- Determine need for, request, and review audit reports; resolve questions on audits with auditors.

- Document reasons for not synopsizing proposed procurements.

- Request and evaluate preaward surveys.

- Review technical requirements, statements of work, or specifications submitted by the requiring activity.

(2) Intermediate Level Task Priorities.

- Develop negotiation objectives, strategy, and tactics; document in the prenegotiation memoranda.

- Analyze proposed elements of cost to develop prenegotiation positions(ranges on major elements of cost).

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- Analyze price proposals.

- Conduct negotiations in sole source procurements.

- Conduct negotiations sessions with offerers in the competitive range.

- Establish competitive range.

- Prepare post-negotiation memoranda (including a determination of the fairness and reasonableness of the proposed price).

- Conduct/participate in fact-finding sessions with representatives of proposed offerers.

- Conduct negotiation sessions for post-award agreements.

- Conduct prenegotiation meetings with Government personnel.

- Determine need for, request, and review audit reports; resolve questions on audit with auditors.

- Evaluate protests and prepare administrative reports (findings and recommendations) on protests before or after award.

- Determine need to terminate contracts for default.

- Make or recommend the source selection decision or reject all offers.

- Definitize letter contracts or unpriced orders.

- Identify and pursue all available remedies in warranty, guarantee, or latent defect cases.

- Negotiate and execute contractual document settlements of partial and complete contract terminations for convience.

- Issue or distribute default termination notices and take measures to protect the Government's interests and mitigate damages.

- Negotiate settlement of contract terminations for default.

- Analyze claims and recommend settlement positions; prepare findings of facts.

- Issue contracting officer final decisions under disputes clause or contracts.

- Negotiate claim settlements with contractors.

- Identify defective pricing cases.

- Demand and negotiate refunds for defective pricing.

- Prepare, assemble dispute or claims files for the General Counsel.

c.   Coast Guard Survey Results

The Coast Guard survey data and interviews with Coast Guard and DOT personnel reveal similar tendencies though somewhat less specific and not divided into the basic and intermediate levels. The following are the most often identified training areas (they are not all of the areas identified, only the most frequent):

- Claims resolution, analyzing delay and disruption costs.

- Cost and price analysis.

- Definitizing contract changes.

- Managing contractor failure to perform.

- Contract pricing.

- Competitive proposals contracting.

- Negotiation skills, techniques, strategy.

- Working with the FAR.

- Debriefing unsuccessful contractors.

d.   Summary of Surveyed Training Priorities

In summation of the tasks/topics identified through survey and interviews as the most desired or requiring the most emphasis, there are a few observations to be made:

(1) Dominant Areas. The dominant areas identified can be grouped under several broad headings including:

- Analysis of price and price related factors.

- Cost analysis.

- Negotiations; strategy, tactics, positions,....

- Certain aspects of contract law--particularly relating to bids,
  claims, protests and failure to perform.

- Managing contract changes.

(2) Price vs. Value. It is obvious that in Government contracting justifying our buying procedures is as important as how well we buy (obtaining a fair and reasonable price).

(3) Consistency. The Coast Guard contracting personnel identification of training priorities are substantially in line with those identified by the Federal Government procurement workforce in general, and DOD procurement workforce in particular.

2. Training Needs Identified from AMRs, IG and Audit Reports

The second approach (and possibly the more telling) to the determination of the true training needs (or at least a prioritization of procurement training needs), is through the analysis of inspections and discrepancy reports, along with interviews with those who conduct those inspections. The following is a presentation of recurring AMR, IG and GAO discrepancies that may be attributable to inadequate procurement training. The previous head of the the AMR Team, Mr. Dave Beck, reported that there exists no indepth staffing and career development analysis during the AMR. They subjectively correlate training and deficiencies, there is no comparison to required training and the supervisor is not evaluated on training accomplishment. It has been noted on a few AMRs a matrix has been presented identifying billets and training completed/deficiencies; however this is not a consistent practice. The areas presented next will of course not be as specific as the survey results cited above are:

- Lack of meaningful negotiations.

- Inadequate contractor monitoring; late delivery with no follow-up; no attempt at consideration.

- Late payments.

- Poor definitization of contract changes or modifications.

- Poor contract closeout procedures.

- Contract modifications lack proper documentation.

- Weighted guidelines method of profit determination not followed; no profit objectives established.

- Specification writing; specifications incomplete or written to restrict competition.

- Lack of interagency coordination; use of DCAA, QPL, etc.

- Improper solicitation procedures; inadequate disclosure time in CBD, engaging in less than FOC.

- Inadequate determinations of contractor responsiveness and responsibility.

- No professional staff trained in cost and price analysis; no team available with expertise required by FAR 15.810 (pricing).

- Lack of required clauses in contracts, warranties.

- Prenegotiation memoranda incomplete.

- Documentation of contract actions consistently a problem.

- Personnel assigned to negotiate contracts not trained in negotiations.

- Acquisition planning procedures inadequate, type of contract, required solicitation and threshold reviews not followed.

- Training and career development not given a lot of attention.

A similar grouping of required priorities (compared to the survey data above) results from the analysis of discrepancies. The most notable difference is the significant problems with Coast Guard contract administration including inadequate notification requirements, improper solicitation procedures, lack of required clauses and poor contract documentation.

It is reiterated that these are not isolated problems, but those identified as occurring most frequently. A very positive note was that in all instances ethics procedures have been identified as excellent.

   3. Private Industry Training Priorities

The industry perception of necessary skills is even more broad, however instructive to present. "Of the numerous skills inherent in managerial functions, the government procurement manager must primarily be an expert communicator." [Ref. 16:p. 7] Industry representatives favor training in oral and written communications, negotiations, specific company oriented contract administration and general managerial ability. As noted earlier, the way that industry hires is a major input, however certain periodic training needs are recognized (e.g. negotiations a,d company specific contract administration) and conducted.

D. SUMMARY

In Chapter IV the discussion on the skills and knowledge required of procurement personnel began with the FAR and requirements for Contracting Officer appointment and moved into a presentation of the competencies and task analysis recently completed by FAI. The above analysis of training needs takes those skills identified in Chapter IV a step further by placing them in a real time mode, that is to say that there is a genuine need to know the tasks and certain of those tasks are more critical (or not learned as easily) than others. Training deficiencies exist not only due to lack of training, but also to the inadequacy of training received.

The next chapter presents some conclusions and recommendations for enhancing the Coast Guard procurement career management system.

X. CONCLUSIONS AND RECOMMENDATIONS: A PLAN OF ACTION

A. INTRODUCTION

This project began in response to the GAO Report "Coast Guard Acquisitions--Status of Reform Actions" which has been referenced numerous times throughout the study. Specifically, the GAO report focused on training and career development through increased training; however as we have seen, this is but one element to the larger concept of a Procurement Career Management System. This report does not advocate career management as an end in itself. Rather it is believed that there is a direct and compelling relationship between the quality of procurement personnel and the quality of the business management decisions they make as representatives of the U.S. Coast Guard. The results of survey data, interviews and numerous AMR, IG and GAO reports reflect the problems of an evolving professional contracting community within the Coast Guard.

This thesis has been an attempt to walk the reader through the process of procurement career management, not just in the Coast Guard, but in any well run organization. The discussion began with why we should be concerned, then what it is that we are required to know, who is required to know it and who is responsible for ensuring they know it, and finally how is that knowledge to be gained? In some Government agencies the procurement workforce is viewed--and more importantly--treated like a corporate resource. In other organizations they are merely the functional means through which a task is accomplished and are consistently placed at the end of the line for corporate resources.

Unfortunately in the Coast Guard they are in the latter category. The following conclusions reflect the status of the Coast Guard Procurement Career System and the role the elements of a career program play in professionalizing the workforce.

B. CONCLUSIONS

1. No Procurement Career Management Program

The Coast Guard does not have a viable Procurement Career Management Program to anticipate and/or respond to organizational concerns. To be successful, we must train our personnel and then we must capitalize on that experience and training by retaining those personnel in whom we have invested the resources to train. Therefore, procurement career management must be viewed from a systems approach - not piecemeal by focusing only on training (without addressing grade structure, recruitment, etc.).

2. Negative Impact On Mission Accomplishment

The lack of an effective Procurement Career Management Program for Coast Guard Contracting personnel has a negative impact on Coast Guard mission accomplishment. Numerous examples of restrictions on mission readiness due to inadequate logistics support, longer procurement lead times, higher life cycle costs, etc., have been noted in the research. The views of supervisors and employees along with the numerous reports reviewed provide more than adequate support for this conclusion.

3. Influence From Organizational Changes

Numerous changes in both the form and function of Coast Guard Acquisition have had significant influence on Headquarters directed training improvements. The establishment of the MLCs is just the latest

in a string of changes; these changes draw attention and drain resources away from the ability to provide procurement career management the focus it requires.

4. Warrants Program--Progress

Despite the problems noted, progress has been made. The Warrants Program is a big step in the right direction. However these efforts are piecemeal without an overall system to plan, coordinate and evaluate the status and effects of each element in the procurement career management system.

5. Procurement Career Management Saves Money

Good procurement career management programs save resources! Operating under a poor program we can waste just as much. Conclusive evidence supports this conclusion from many agencies, including: DOE, DOI, VA and Navy. It is a well established fact that better trained people perform better and better performance saves resources. Additional resources are saved through a lowering of the turnover rate and the attendant administrative costs associated with personnel management.

6. Top Level Support

Truly active top level support for a procurement career management program does not yet exist. The procurement training coordinator duties servicewide for the Coast Guard are the collateral duty of a junior officer in FPM. Procurement training consistently takes a back seat to operations. An example of this attitude is manifest through the lack of use of quotas when made available and the lack of dedicated funding for procurement training. A recent example of this is the cutbacks in funding proposed for several small purchase courses to be conducted in FY88. Even though there is a demonstrated need for this

training, it has been well received by the field, and a contractor has used successfully to implement. the training has been considered for cancellation.

7. Minimal Costs

The cost of implementing an effective and comprehensive procurement career management system is minuscule compared to the dollar value of transaction's Coast Guard personnel process and the potential benefits to be gained. There is adequate cost data available from Coast Guard and other Agency experiences to identify upfront what a good program would cost. The ability to recognize economies of scale is directly attributable to the consistency of funding commitment and lack of a mechanism to establish a servicewide requirement.

8. Inferior Grade Structure

Inferior grade structure continues to be a problem. This point was made by several field supervisors as well as employees. The survey data on turnover, importance of various organizational/motivational rewards and procurement experience support this conclusion as well.

9. Inexperienced Coast Guard Workforce

The Coast Guard Procurement workforce is relatively inexperienced. Statistics on turnover, years of procurement experience, education levels, the age of the workforce and the diversity of procurement experience indicate that the Coast Guard is where entry level people come to "cut their teeth" in procurement before moving on to agencies with better pay/promotions. It takes time to recruit experienced personnel and fill vacancies. Moreover, significant time is required to train and indoctrinate newly hired personnel before they can function efficiently. The net result is that either inexperienced

personnel are given work they are not yet ready to handle or a small cadre of experienced personnel continue to handle the bulk of the procurement workload (and are therefore never released for training).

10. An Acquisition Personnel MIS is Crucial

The Coast Guard is organizationally not set up to succeed in their procurement training efforts. G-FPM lacks the information they need to proactively manage the acquisition workforce. The lack of an acquisition personnel MIS is a key factor in this regard. This is evident in the administration of the Warrants Program, the determination of training needs, budgeting and scheduling of procurement training.

There is no mechanism inplace to identify, communicate and document procurement workforce concerns to top management. The need for an acquisition personnel MIS has been thoroughly demonstrated. Other efforts that assist in the identification of workforce concerns are the "Quality Circle Groups" in use in the Navy and the Contract Review Boards (none of which are used with organizational consistency in the Coast Guard).

11. Inadequate Training

The training that is received is not optimum for Coast Guard procurement personnel. Very few courses are tailored to Coast Guard personnel. Most training is not task/competency oriented and therefore even when people receive training in a certain area, it may not really improve their job performance (rather it may simply increase their general procurement knowledge). The Cost and Price Analysis, Negotiations and Contract Administration training fall under these categories. As a manager, I would not prefer to forgo the production of a person for a course that is not totally suitable for the needs of my

employee and myself. There is a lack of consistency in the way the Coast Guard satisfies the same training needs which further inhibits service wide competency. The survey results and AMR reports support this conclusion, consideration must be given to effectiveness of the mode of training accomplishment as much as to subject itself. The use of the SEN or correspondence modes to satisfy training requirements support this conclusion.

12. Maintenance Training

Maintenance training is required at least once a year. The continual parade of new laws, regulations, and GAO/Court/BCA decisions ensure that Federal contracting will not remain static for long. The constant turnover of management and technical personnel, the workload associated with the expanding or contracting of the budget, changes in the scope or direction of effort, all require constant attention to personnel programs, to training and cross-training efforts, and to the maintenance of a high degree of teamwork. Certain problems/topics require continual addressing. Particularly Negotiation techniques and Price and Cost Analysis. It has been noted the emphasis placed in this area by industry. Similarly it has been shown that historically these areas are a concern; however, lack of training is not the only reason. Suitability and frequency are factors as well. Courses may have similar titles and be vastly different. For instance, the DOD course on cost accounting standards does not appear oriented to the predominant situations that Coast Guard contracting personnel encounter.

13. DOD Training Base

DOD procurement resources are difficult to obtain and it can be expected to get worse. DODD 5000.48 more than triples the DOD training

backlog. Other factors include qualified instructor problems, course
cancellations for revision and updating and that simply the Coast Guard
does not have equal priority with DOD for their courses. The ability to
plan and schedule training well in advance is necessary to identify those
attending and to tailor the instruction.

14. EO 12352

The Coast Guard is not in compliance with Executive Order 12352
which requires the establishment of career management programs "covering
the full range of personnel management functions, that will result in a
highly qualified, well managed professional procurement workforce".

15. Motivators To Train

The Federal procurement training effort is a real mixed bag of
motivators, resources and practices. For some, such as DOD, appearing on
the cover of the NY Times and Washington Post has been the prime
motivation. For others, it is the fear of showing up there that has
given their programs the needed push. In DOT one can say that this is
truly one of the dominant forces behind their oversight of the modes.
Mr. Robert Collins, the DOT Competition Advocate, stated in response to
the low dollar DOT imposed threshold review levels, that the reason (for
them is the) "perception of the Department in the media is a major
influence, (there is) nothing in the paper yet and I want to keep it that
way". [Ref. 48] From an academic point of view it is unfortunate that
we are managing the process backwards by imposing restrictive levels of
review on the output and not exercising the same effort on the inputs
(people and training).

The "rice bowls and politics" perspectives have been noted more
than once, one can only hope that it won't take a similar "impetus" to

give the Coast Guard procurement career management program the priority it deserves (and requires).

16. Window Of Opportunity

There is a window of opportunity, both within the Federal Government and DOT to improve the acquisition process, particularly through the development of procurement career management programs. Senator Jeff Bingaman (D-NM) intends to reintroduce legislation to improve the quality of the acquisition, scientific and technological federal workforce. There are other indications however that some Congressmen feel it is time to put procurement reforms on the back burner--so the "window" may not be open too long.

Within DOT, Mr. John Seymour, Assistant Secretary of Administration, stated at the DOT Procurement Conference "The bias is to get things done--not prevent them". Within the Coast Guard; "Acquisition has been the only growth game in town". [Ref. 49] The opportunity is as ripe as it will get for us to institutionalize a procurement career management system our way (v. someone else doing it for us--through a directive from on high).

17. Use Of AMRs

Many of the AMR and IG discrepancies can be eliminated through career management and better training. The previous head of the AMR team described the conduct of Coast Guard contract administration as being done on a "firefighter basis". The AMR results are not systematically used to reevaluate the training and education base. A valuable source of feedback is not being utilized.

18. Similarities With DOD

The Coast Guard contracting workforce has many similar concerns as the DOD contracting workforce in terms of the importance of selected organizational rewards and motivators. This conclusion is supported by interview and survey data and it provides a quantifiable basis for the selected application of personnel research and findings in DOD to procurement personnel management in the Coast Guard.

19. Accountability For Training

There is no accountability for training accomplishment or lack thereof, in the Coast Guard. The Warrants Program provides an indirect control measure for those contracting officers to be awarded warrants. This is merely a checklist approach to see that all the required courses have been taken before award of a warrant. The AMR team does not specifically address training requirements and viability of training methods. Additionally the status of workforce training is not a critical job element in supervisor evaluations.

Supervisors are the "keystone" or "weak link" in any training effort--depending on your point of view. There is a definite need for supervisors to be involved in the establishment of individual training needs for their personnel and ensuring that they get the required training. There are many excellent contracting supervisors in the Coast Guard that the author interviewed, all with good insights into the training problems. We need to systematically tap this resource to enhance any centrally directed efforts.

20. Central Focus Required

A central focus for servicewide procurement career management and training is an absolute necessity. The organizations that have full time

training coordinators have good or at least better programs. The agencies with part time training coordinators also have a part time training effort. The procurement training effort will simply not work without at least one person for whom that is their only job. The Coast Guard is suboptimizing their servicewide procurement training organization by assigning servicewide responsibility to an individual on a part time basis while devoting a full time position to the development of a training plan solely for the Office of Acquisition.

21. Training Shows Concern

Training is an motivator. It shows employees that the employer is concerned enough to invest the time and money in that individual to make them a better performer. The lack of training is a demotivator. This is not solely an absolute luck of training, but poor training or inconsistent application of training or selection for training is equally a poor motivator. The Coast Guard has some significant personnel concerns with the realignment, the survey data indicate that a fourth of the Contracting workforce are dissatisfied with their jobs even without consideration of those affected by the realignment.

22. Field Input

Regular substantive and substantial field input is necessary to ensure a viable procurement training program. The ability to schedule training well in advance and the applicability of the training received have been shown to be vitally important to the success of any training efforts. These factors cannot be evaluated without field input. Training should not be scheduled in the fourth quarter or around the Christmas holidays for example. More efforts should be made to bring as much of the training as possible to the contracting activities.
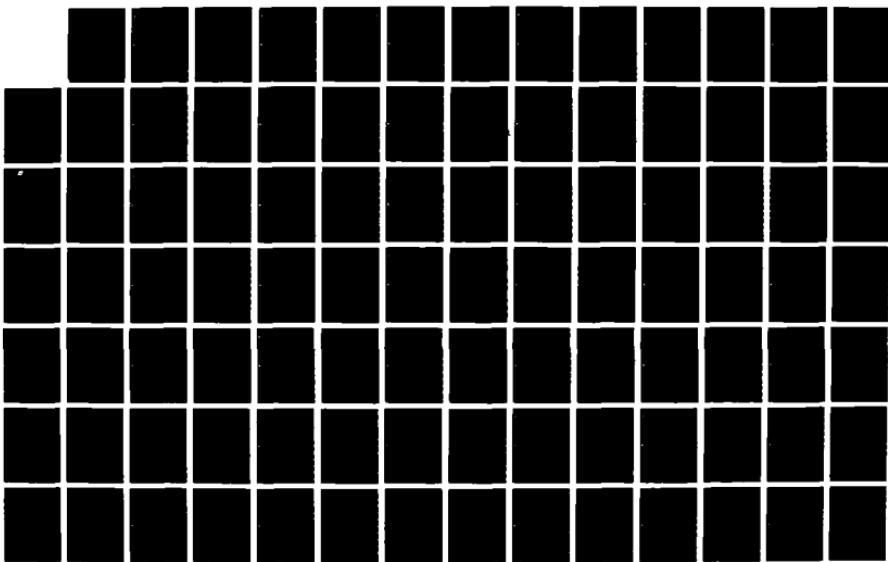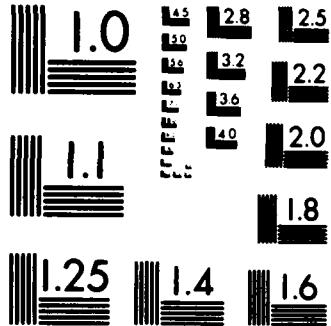
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23. Deskguide

The development and maintenance of a Coast Guard wide procurement deskguide should be a function of G-FPM. In the Army the Army Materiel Command maintains their servicewide deskguide with reasonably good success. The development and use of a deskguide is something many people favor and would enhance the consistency of procedures servicewide.

24. Requirements Training

Training for people who generate the requirements is necessary. The procurement process does not start with the Contracting officer, it begins with the determination of need and the subsequent transformation of that need into a purchase request by the requiring activity. The data has shown a need to improve specification writing, requirements definition and a better understanding of the procedural "wickets" (procurement personnel must jump through) on the part of technical and program personnel. Historically the relationship between requirements people and procurement people has been adversarial. A course, not to "cry the contracting blues" to requirements people, but to show them ways to facilitate the procurement process and promote an understanding of the contracting arena, would go a long ways towards eliminating some of this "adversarial relationship".

25. Analysis Required

A major indepth analysis is not required at this time to develop the required training program. The data from this study, the FAI competencies and task analysis, the DOE, DOI, and VA workforce analysis' lay sufficient groundwork - the key now is to relate this data (via policy, supervisor and employee input) to the Coast Guard environment.

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The Coast Guard is poised for the development of a procurement career management program--whether it is pursued is an entirely different story.

26. Procurement Research

There is no consistent mechanism for procurement research, particularly procurement training research, in the Coast Guard. There is an incredible wealth of knowledge, experiences and ideas out there in Federal Government procurement training and career management with tremendous immediate and future potential application to the Coast Guard. The experiences and developments at DOE, DOI and VA are cases in support of this conclusion. Every single procurement executive or training coordinator interviewed was more than willing to share ideas and provide insights on procurement career management. The Coast Guard needs to take advantage of these resources for several reasons; not the least of which are they provide a more rapid path to our own training improvements and there is no need (or resources available) to reinvent the wheel. As one agency procurement executive said to the author "all in the name of better productivity"...and he meant it!

27. Comments On The ACE-II Study

The ACE-II study has identified some critical problems that need to be addressed in the Federal procurement training base (and in DOD in particular). Nonetheless, some of their recommendations have missed the boat, particularly the recommendation for one six to eight week mandatory acquisition course (each) for level I and level II contracting personnel. Additionally they have recommended no mandatory training for level III (supervisors) personnel. The author does not agree with this approach for several reasons. There are not many supervisors who would be able, let alone voluntarily allow, one of their contracting officers to be gone

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for two months at one time! For one thing, the entry level person has no framework within which to place eight weeks of training; there is no substitute for some on the job experience to establish a frame of reference to facilitate the concepts taught in class.

It is absolutely wishful thinking to go from some thirty-four courses in the Federal procurement training base down to a few. My best guess is that it will shake out much of the redundancy in the procurement training base and therefore shave some weeks off the required training time. There also is not a whole lot of logic to the elimination of advanced training for level III personnel. The whole purpose of executive seminars is to bring supervisors in line with changes to the FAR, TAR, DAR, etc. The ACE-II study has developed some very useful information, particularly with regard to competencies and the need for a Defense University of Acquisition Management (DUAM) to serve as a coordinator for the DOD procurement training base (a university without walls).

C. RECOMMENDATIONS: A PLAN OF ACTION

The Coast Guard Acquisition Workforce mingles civilian and military expertise in numerous disciplines for the management and staffing of a $1 billion per year procurement effort. Each year millions are spent more or less efficiently, based on the competence and experience of these personnel. Yet compared to other agencies, this workforce is undertrained and inexperienced. Acquisition training for contracting personnel lacks the necessary direction, planning, coordination and accountability to make the training base efficient and effective. Real and perceived problems continue to mount--training backlogs, inadequate resources, unnecessary duplication, courses with no or limited competency

and skill development, and training technologies and capabilities that are not fully utilized. Whatever changes we have made, or will make, to the acquisition process, it is vitally important to recognize that "the real issue is the people issue". [Ref. 50] Management has been called the "art of getting things done through people". [Ref. 51:p. 3] However utilized, any education and training programs must be orderly, continuous and progressive. They must also fit into the large concept of a procurement career management system.

These recommendations are offered as a package deal. This is not to say that everything must (or could) happen all at once, simply that there is a synergistic effect to many of the recommendations proposed.

The Coast Guard has indicated that its small size does not permit it to pursue certain actions. In an article titled: "The Marines: New Masters of the Acquisition Process?", General Kelly, Commandant of the Marines, cites their small size as an advantage. This author would extend that same argument to the Coast Guard.

We have the advantage of not being wrapped up in a huge bureaucracy like the individual DOD services. One of the points really driven home by this research is that you don't need a big (or even small) bureaucracy to manage the procurement career development effort. The following recommendations are identified as what we do need however, to enhance the professionalism of the Coast Guard's procurement workforce and thereby improve the ability of the Coast Guard to accomplish her missions.

1. Top Level Advocacy

Obtain top level support through vocal advocacy and a consistent commitment of resources to a Procurement Career Management Plan. Unless top management is willing and able to dedicate a specific and reasonable

level of resources (time, dollars, people), any career management program, including the education and training plan, will be little more than a facade. The experiences and successes of the Air Force, DOE, DOI and VA should be taken to heart, and special protected funding pursued to support a procurement program. The FAA has shown this can be done within the Department by securing a commitment to obligate for a three year contract for procurement training. Top level support is not manifest solely through funding, it is also manifest through the prioritization of training accomplishment, career development actions, etc. A demonstrated interest is as vital as the funds.

2. Provide A Central Focus

Establish a GS-13 full time Procurement Career Manager/Training and Education Coordinator. Consistent with this action disestablish the O-3 training billet in G-ACS to assist in freeing up resources for the establishment of the Coast Guard wide procurement career manager. In the interim--move the O-3 from G-ACS to G-FPM an apply the office plans Coast Guard wide. Virtually every commission or study group recommended, in one form or another, enhanced central policy direction. The Coast Guard reorganization study concluded that some functions such as personnel management, training and education are better centralized than regionalized. It seems clear that trying to manage a major career program without a focal point for complete responsibility is unlikely to be successful. The individual selected must first be a manager (v. used procurement type). This position should be located in G-FPM and will provide the focal point within the Coast Guard for all procurement career management efforts. Specific responsibilities shall include:

- Proactively plan, budget, obtain and schedule courses and quotas as appropriate.

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- Publish regular information pertaining to career patterns, opportunities, and other aspects of the program administration.

- Function as a central quality control over training completed and follow-up on all training and education completed (regardless of the form).

- Liaison with contractors, resident school house training coordinators, other agency procurement career managers and FAI. Develop a network for staying abreast of the latest initiatives in procurement career management and the potential application to the Coast Guard (an institutional requirement for procurement research).

- Manage and maintain the acquisition personnel MIS, IDPs and Warrants Program. (MIS and IDPs separate recommendation to follow.)

- Represent the Coast Guard on task groups and other mechanisms established to develop or evaluate procurement career management programs.

- Assure Coast Guard compliance with EO 12352 and other governing laws, regulations, orders, etc., that pertain to procurement career management.

- Continuously survey or monitor the procurement workforce to identify trends in new training needs, areas of shifting emphasis, etc.

- Prosecute an active procurement training maintenance program (another separate recommendations) through the use of AMR Team, videotape, CBI, etc.

- Evaluate and report on program accomplishments and effectiveness.

- Assure orientation of managers, supervisors, and employees with the goals of the procurement career management program.

- Serve as the Secretary to the Procurement Career Board (another recommendation to follow).

- Function as a member of the AMR Team to specifically address procurement career management needs and accomplishment at the units inspected.

3. Establish A Procurement Career Management Board

Establish a procurement career management board; the composition and duties of this Board should be as follows.

- Composition: The Board should contain an appropriate mix of policy, supervisor, and employee input and participation. A recommended staffing is:

- Chairman: Branch Chief G-FPM
- Secretary: Procurement Career Manager
- Members: Chief Contract Support Division G-ACS
  Chief of Procurement from: Coast Guard Yard, Inventory
  Control Points, FD&CC's RTC and TRACEN and selected
  Program Managers.

This Board would effectively institutionalize the "annual" Contracting Officer's Conference. The Board should meet no less than once each year and more often as necessary, particularly in the initial stages of development of the procurement career management program. (Note: included DOT Board Representative and Procurement Executive & Personnel.)

- The duties of the Career Board will be divided into initial startup tasks and ongoing requirements.

- Startup duties:
  - Develop and forward for approval a procurement career management system enabling instruction.
  - Develop and forward for approval the Board's charter (what do you see as your responsibilities).
  - Develop the structure, content and input into the use of IDPs.
  - Provide recommendations for an effective and useable acquisition personnel MIS.
  - In general, the Board members can be charged with responsibility for discrete "building blocks" needed to create or maintain a procurement career program.

- Ongoing duties:
  - Review career paths and advise of training/education requirements consistent with those paths and the needs of the service.
  - Review the contents of procurement courses for adequacy, accuracy, and completeness.
  - Review the DOT intern program (a recommendation to follow).
  - Review grade structures, position descriptions and recruiting requirements and work closely with the personnel department to resolve any needs.
  - Make recommendations concerning the overall management and administration of the career program (particularly identifying areas of developing or shifting emphasis and the use of maintenance training to satisfy them).

The following recommendations are in part subparts to the three major recommendations above. They represent specific concerns that must also be addressed.

4. Develop An Acquisition Personnel MIS

Develop an acquisition personnel MIS run by and for management of acquisition personnel. The need for such an MIS has been clearly demonstrated along with the fact that it need not be a big and fancy operation; DOI runs theirs on a desktop computer. It has admittedly grown from about ten data elements to fifty-five (55) as more people recognize the usefulness, however it remains manageable by the procurement career manager. There are enough "canned" (off the shelf) software programs available, along with good experiences in other agencies to readily establish the framework of such a MIS. The key will be not to try and wrap our arms around too much data, yet to provide enough to manage by. The primary concerns being analysis of turnover; training budgets, scheduling and followup. At a minimum the MIS should include [Ref. 35:p. 24]:

- Series and grade
- Functional experience descriptions
- Supervisory and non-supervisory
- Service computation date
- Education
- Training
- Professional Organizations
- Unit
- Number of years in career field and service computation date
- Current academic interest
- Career objectives
- Retirement eligibility

There must be a mechanism to automatically and immediately notify the career manager when contacting personnel are hired, fired or

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otherwise change jobs. Whether this can be tied into existing systems (such as pay) or already exists is not known to the researcher.

It becomes rather obvious how the IDP can be a valuable input to an MIS. A possible approach is to use a technique employed in the Seventeenth Coast Guard District to administer the Short Range AtoN (SRA) program. The program is run on a personal computer and floppy disks are mailed back and forth to facilitate updates.

5. Individual Development Plan

Implement the use of Individual Development Plans (IDPs). Whatever else is done with the IDP, it must first and foremost serve as the roadmap for the supervisor and employee--not a data processing form. This must be balanced with the recognition that what happens to the IDP after it is completed is crucial to the viability of such a mechanism. By using the IDPs as an input to budget for and schedule training there is a credibility that is lent to the use of the form beyond simply the documentation of what has otherwise been described as simply good management practice.

6. Intern Program

Promote the development of a DOT wide intern program. The management of a Coast Guard wide intern program is neither necessary nor feasible at this time. Intern programs are proven sources of good hires and a good program will only serve to enhance whatever other procurement career management efforts are taken. The intern program should be patterned after those now inplace in the Air Force and Navy.

7. DOT Mandate Requirements

Along with encouraging DOT to institute a Department wide program, the Coast Guard should also request that DOT mandate general

procurement training requirements. This recommendation is made because it is "easier" for the Coast Guard to obtain needed funding based on a Department mandated requirement than for an internally generated one (politics of course). This recommendation is simply to mandate the general requirements and to leave implementation up to the individual modes (administrations).

8. **Reclassify The GS-1102 Series**

Support the requirement for reclassification of the GS-1102 series as "professional" v. "administrative". This administrative designation prohibits the establishment of <u>any</u> business education requirement for contract specialists. This is not to say that a college degree is an absolute necessity. However, a requirement for business related college courses can then be established similar to that now required for the accounting personnel series.

9. **Utilize FAI**

Bring in FAI to explain what they can do. Publish a list of colleges and universities, along with points of contact, where Coast Guard contracting personnel are located. The IAPC can be used for this recommendation.

10. **Followup On Training That Is Conducted**

Evaluation of procurement training should not be an afterthought. When a student is identified for a class, along with proactively managing the course content, we should pursue active follow-up with both the employee and his supervisor. It will take some time to show improvement, therefore the MIS will identify when (say 60 days) a package should be sent to the supervisor <u>and</u> employee to assess the adequacy of the training.

11. **Reconsider Military Acquisition Career Path**

Reconsideration of the career path issue for military officers in acquisition is warranted. The Navy NACO program is an outstanding "PQS" type approach to their military officer career procurement career path. "It is obvious that a procurement officer cannot take over the role of a pilot without extensive pilot training, but it is often assumed that a pilot having a small amount of procurement training, and in some cases no training, can take over the role of a procurement officer." [Ref. 25:p. 47]

12. **Recognize Individual Training Accomplishments**

Recognize completion of off duty procurement related education and training and participation in professional organizations through merit pay objectives and as quality enhancement factors in job placements. It is not reasonable at this time to require certification with professional organizations, however participation should be recognized.

13. **Recruitment And The Personnel Office**

Work closely with the Personnel Office to prioritize recruitment of people with college level education and or professional certification. If and when the qualifications of the Federal procurement workfore hit the limelight again the positive education requirement is likely to make it through. The Air Force attributes a lot of the success of their intern program to the fact that 90% of the trainees are college graduates. A recruitment program must support a retention program.

14. **Training Accomplishment As A Critical Job Element**

Establish employee career development and training accomplishment as a critical job element in the evaluation of supervisors. Supervisors

play a vital role in any career development efforts, there is too little consistency of attention paid to the identification and satisfaction of employee training needs. The need for setting uniformly high standards of performance and measuring resultant performance against those standards is imperative. The AMR is an existing device that can be readily adapted to monitor training accomplishment.

15. <u>Maintenance Training Program</u>

Develop a maintenance procurement training program that at a minimum includes annual refresher requirements in Coast Guard contract administration, cost and price analysis and negotiation concerns. This should be an annual requirement utilizing the AMR Team, videotape and/or CBI. Consistent with this recommendation is an exploration and exploitation of video and CBI as mediums for training accomplishment. Lets take a tip from our own recurring deficiencies and industry emphasis and address the price and cost analysis and negotiation issues.

16. <u>Overall Plan For Training Accomplishment Coast Guard Wide</u>

Develop an organized methodology for satisfying procurement training requirements through a specific arrangement of courses both Coast Guard sponsored and with other agencies. The proposed method would be to develop from the ground up courses that meet Coast Guard needs.

This involves taking a page from the DOE and VA program books and starting with entry level course development. Much of the ground work has been laid, particularly at VA.

It appears that scheduling and applicability of training are critical to the success of the training effort. At present we have minimal control over both (along with quality control over the courses).

A core curriculum of four entry level courses, along the lines of the VA is recommended. These courses would be one week in duration (to facilitate attendance). A basic curriculum would be:

(1) Coast Guard Contract Administration
(2) Cost and Price Analysis
(3) Negotiation
(4) Coast Guard Contract Law

On the intermediate and advanced levels it is recommended, for now at least, that the training be provided in conjunction with other agencies. This is recommended for several reasons:

(1) The immediate demand is not as large or recurring for the higher the level courses.

(2) There are significant benefits to be realized through the interaction with careerists from other agencies (which is not as applicable at the entry level--no framework of reference).

(3) With a full time career manager/training coordinator, slots in other agency courses can be arranged on a more predictable and formalized basis. The Coast Guard can also set up reciprocal agreements with other agencies for training.

D. THOUGHTS ON IMPLEMENTATION

It is not enough however, to simply make recommendations without forwarding some plan for implementing those recommendations. This next section will concern itself with some thoughts on the need for change in the Coast Guard acquisition workforce and how to achieve that change.

As noted earlier, we have the advantage of a manageable size workforce and the authority to manage it. At a time in the Coast Guard when many civilians have lost jobs or relocated (and the potential is for many more to loose their jobs through the upcoming Headquarters reorganization), the proper management of change takes on additional significance. The turnover rates and experience figures determined by

the workforce analysis do not include the effect of the realignment. This effect can quite reasonably be expected to increase the training requirement significantly (over one-third of the procurement workforce has been affected) and dramatizes the necessity of a procurement career management system as a means of continuity or at a minimum as a mechanism for assessing the effects of these changes.

1. Realignment Concerns

In the course of this research, several important points were revealed in conjunction with the MLC establishment that the author feels are worth noting.

Some of the lessons forwarded in the LMI study do not seem to have retained their importance in the organization of the MLCs. Specifically the procurement function does not have "comparative equality with organizational counterparts". It is instead back as an element under the Finance Division and partially dispersed under various technical divisions. This further fragments the direction and accountability of the procurement workforce.

It is obvious that both the MLCs are located in high cost areas--what may not be so obvious is the added importance an adequate grade structure and career path will be to recruiting and retaining high quality personnel. Two additional factors which will emphasize the grade structure requirement have been revealed in discussions with personnel from other agencies in New York, NY and Oakland, CA. In New York, the availability of GS-1102s within a "reasonable" commute from Governors Island has been described as "limited", it may therefore take a little more just to attract the numbers of people required. In the San Francisco/Oakland Bay Area the opposite is true--there is an abundance of

GS-1102s. The ability to attract and retain the high quality people we desire will be highly dependent on our ability to compete with the numerous other Federal agencies in the area. The importance of an adequate grade structure is vital to minimizing the turnover problem (particularly the Head contracting jobs).

The MLCs are coming on line at a hectic time of the year (4th quarter), if improvements are seen they will be short lived once the MLCs are out of the limelight. This is because without a corresponding improvement to the career management effort, the same problems with turnover, training, etc., will remain. This is not to say that improvements cannot be gained by simply by reorganizing, however they tend to be short lived as people return to their traditional patterns of behavior (e.g. training is secondary, making the same mistakes).

Any change is disruptive, however the Coast Guards' "reputation" as a caring employer has been tarnished by this major reorganization and there has been a lot of animosity in the Districts as the shut reductions have been ordered. The development of a procurement career management program offers an excellent opportunity to reaffirm that concern we have for our employees. Therefore these changes needs to be managed very carefully, a career program cannot be something that is thrust upon employees.

2. <u>The Process of Change</u>

To facilitate these concerns, the implementation of the aforementioned recommendations is proposed using Levin's three-step sequential model. This model involves "unfreezing" the present behavior pattern, "changing" or developing a new behavior pattern, and then "refreezing" or reinforcing desired behavior.

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Unfreezing involves making the need for change so obvious that the individual, group or organization can readily see and accept it. This report is hopefully a start in that direction; by identifying the costs that an inadequate procurement career management program fosters (turnover, inefficient and improper buying). The DOT Procurement conference was another step in the process of "unfreezing"; in the training breakout session there was absolutely no disagreement that improvements in procurement training need to be made. The previous Navy Competition Advocate, Adm (Ret) Stuart Platt has said:

> Part of our strategy is to increase training. We've really got to reach our flag officer, our executives, our people in buying activities, our people who work on the drafting boards, and the people who work for our contractors. [Ref. 52:p. 7]

Lest one think that this process is purely an academic management consideration, the following experience is offered:

> The development of the current DOD program for procurement personnel was prompted by the Secretary of Defense in 1965. This action marked an energetic approach to provide the procurement function with qualified personnel. Due to resistance from some of the services, however, the program was not fully implemented, nor was constant pressure exacted from the top to ensure that the program was carried out. [Ref. 25:p. 1]

The resistance from the services mentioned above was in large part because there was little involvement by "non-policy" personnel in developing a career program. The unfreezing is needed as much, if not more in non-procurement supervisors as well as in those procurement supervisors who always succumb to putting operations over training. There are many Coast Guard procurement supervisors ready and eager to go to work on a comprehensive career management program; but not if it is without top management support and therefore viewed as an exercise in futility.

Changing requires a change agent to foster new values, attitudes and behavior through the processes of identification and internalization. This role is played by the career manager/training coordinator and the career board. This is why it is very important that whomever is selected for the career manager position be first and foremost a "manager". The internalization will come once supervisors see a lower turnover rate and better performing employees.

Finally, in refreezing we lock the new behavior in place by means of supporting and reinforcing mechanisms. The use of the AMR team, IDPs and an MIS, and instituting training accomplishment as a critical job element for supervisors are efforts in refreezing. Two of the biggest actions in this area remain an active top level advocacy and a viable career board.

One can see that again, the common thread through the whole process is <u>top management support</u>. The absolute need for this cannot be overstressed.

E. COST/BENEFIT CONCERNS

This section of this thesis addresses the general costs and benefits to a procurement career management system like that recommended herein. The cost/benefit analysis is where the rubber meets the road for most decision makers and no report would be complete without at least a general assessment of the costs and benefits involved. What good is a procurement career program if we can't afford it?, what is the return on investment?, how long is the payback period?, what are the opportunity costs of those resources?, etc. Decision makers must consider all these questions and more when rationalizing the extent of a procurement

training effort. The solution is not just to throw more money at the problem--the solution is to take the actions that will result in improved Coast Guard mission accomplishment. The intent of this section is to present some of the costs and benefits actually experienced by others.

1. Costs

In general, the costs attributable to a poor procurement career management program have been addressed throughout this thesis--turnover, high PALT, improper and inefficient buying, etc. Additional cost that are indirectly attributable to a poor procurement function are increased congressional inquiries, lower DOT dollar threshold review levels and increased oversight. The most significant cost is the diminished mission performance or mission readiness associated with poor buying practices. For example, the Coast Guard has been criticized for poor mission readiness for poor buying practices in connection with the Falcon jet engines. Quantifying these costs is beyond the scope of this research. This analysis will examine some of the costs associated with the lack of a consistent, centrally provided training program.

By arranging training on an "as needed" basis (translation: ad hoc) the Coast Guard is not getting the training at the lowest cost available. The average tuition cost for a contractor provided, one shot--five day course is about $15,000. Through the use of multi-year contracts this cost has been decreased to around $10,000 per delivery on a three year contract or a one-third savings. On a five year contract, one agency was able to get the cost per delivery down to about $5000! Obviously the effects of a long term commitment of funds are dramatic. Additionally, in each of these cases the courses have been tailored by the contractor for the respective agency and can be scheduled well in

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advance. The costs to tailor courses range anywhere from approximately $2000 (per course) to modify an existing course to $10,000 to design a course from the ground up.

The cost of a full time procurement training coordinator would be dependent on the grade established for that position (recommend at least a 13), however those costs can be partially offset by the disestablishment of the full--time Office of Acquisition training officer billet (those duties can be absorbed by the new position).

The costs for videotapes, floppy disks, printed training materials, etc., can be reasonably forecast once a specific program is settled on. Agency estimates range from $5,000 to $7,000 per year.

A comparison of the overall procurement training costs from some of the best Federal Government procurement programs is an area for further investigation. Some agencies reported spending around $270,000/year for their procurement training (to train approximately 400 1102s), while other agencies are spending closer to $750K/year (to training 650 1102s); however a baseline has not been established to determine all that has been included in each of these budgets. That information is more readily available once a continuing liaison is established with the training coordinators from the other agencies. The key point is that a multi-year commitment and full time training coordinator permit these agencies to get a lot more for the dollar. The Coast Guard is getting a lot less training (quantity and quality) and spending almost as much ($191K in FY87 to date).

2. Benefits

There are a myriad of benefits that accrue to a viable procurement career management program; many of which have already been

presented in this thesis (lower turnover, lower PALT, etc.). As with the discussion on costs, this analysis will concern itself primarily with the benefits that can be expected from a better procurement training program (although it must again be emphasized that all the elements of a procurement career management system must be considered). RCP-881 describes the benefits expected:

Coast Guard procurement personnel will perform their jobs more efficiently and effectively resulting in less lead--time in the procurement cycle due to improper paperwork, excessive procurement protests, and less time spent researching material they should already know. The Coast Guard procurement program will be in conformance with Executive Order 12352 (Federal Procurement Reform). [Ref. 53]

For FY88 $191,591 was budgeted for turnover alone (at an estimated 25% annual turnover rate). If the annual turnover rate were brought down to the Federal government average, over $115,000 (in funds required to train due to turnover) could be expected to be saved.

Higher efficiency, lower prices paid for goods and services, decreased oversight attention and increased responsiveness are all benefits that have been determined to result from a good procurement training and education program. Again, it is difficult to quantify many of these benefits, however the research has uncovered several actual examples that will lend great credibility to their existence. Consider the following examples of actual improvements that have been attributed directly to better procurement career management programs--specifically good procurement training programs.

a. Losses Due to Mistakes

One congressional report indicated that as much as twenty percent of an agency's procurement budget is lost to unnecessary

mistakes. This alone could amount to $250 million dollars in the Coast Guard!

b. Better Buying

In DOE last fall a survey was taken of the procurement training program. Only one question was asked: "Can you identify a specific instance where something actually learned in the classroom by a student resulted in a cost saving?" Numerous examples were cited, however one case that was identified in particular was where an aspect of the particular competition was changed on a procurement and $6 million dollars were saved! "That just paid for our program for years!" [Ref. 54].

c. Increased Throughput

At the VA, where similar improvements to the procurement training program are in effect, upwards of a twenty percent increase in contracting officer throughput has been directly attributable the the training effort. This of course translates directly into better support for the field as well. "You can make money--we already have made money" [Ref. 46].

d. Decreased Congressional "Interest"

The Congressional Liaison Officer for the Navy reported to the author an equally dramatic example of how he has seen procurement training pay off. Apparently in the Navy a few years ago, the Naval Facilities Command (NAVFAC) had an attitude that "we're different" and they weren't training their procurement people. Soon NAVFAC Headquarters began making the contracting decisions because the people in the field couldn't. When decisions where made it was the engineers and not the contracting personnel. Then approximately two to three years ago NAVFAC

embarked on a dedicated procurement training program. The number of congressional inquiries has dropped from one a day to about one every two or three weeks (you'll never get rid of them all). "This is directly attributable to sending our people to MDACC (basic) and (adv), Contract Law, Cost and Price Analysis, etc." [Ref. 55].

e. Improved Standing on Government Reports

Another demonstration of the benefits of a procurement training program was shown to the author at a Government agency where they have gone from about twenty-sixth on the GSA quarterly report of projects on schedule and within cost, to about third or fourth (the higher the better). This result has been attributed directly to their training program, "we know we're working smarter" [Ref. 56].

f. Coast Guard Experience

Even in the Coast Guard we have evidence that quantifiable benefits are to be had from a dedicated training effort. RCP-881 reports that:

An Acquisition Management Review (AMR) of a Coast Guard procurement office conducted in Oct 84 reported: (1) all procurement personnel were insufficiently trained in areas such as cost and price analysis, negotiation techniques, etc., (2) improperly processed procurements, (3) substandard management practices, and (4) many critical discrepancies with the Federal Acquisition Regulations (FAR). As a result of the review, two level III contracting officers' warrants were revoked. Three trained G-FCP procurement personnel were required to be temporarily assigned to the unit to conduct procurement actions while the units' personnel were properly trained. A second AMR was conducted at the same office after their personnel received training. This time there were far less discrepancies with the FAR found. An AMR was also conducted at a unit whose personnel had a higher level of training. The following was found: (1) procurements were processed correctly and in a timely manner, (2) only minor discrepancies with the FAR were found. [Ref. 53]

Unfortunately, now that that activity is somewhat out of the limelight, they are not receiving the same priority of resources as when

the "problem" existed; even though the head of the contracting activity acknowledges there are still significant turnover problems, grade structure inadequacies, etc.

F. AREAS FOR FURTHER RESEARCH

The following items are noted for further investigation.

1. Investigate Other Agencies

Investigate and monitor the efforts of other agencies particularly DOE, DOI and VA. Specific items to be pursued would include the specialized Warrants Program in DOI and the CBI program at the VA.

2. Structure OJT

Monitor the US Army OJT studies mentioned earlier, for possible application to the Coast Guard training effort. OJT is a type of training that is too often done strictly on a trial--and--error basis. As we have seen, this can be a very expensive way to train in the procurement world.

3. Compare Coast Guard Survey Data With NCMA Survey Data

A comparison of the Coast Guard survey data with the NCMA survey data (that is not yet available) would be worth following up on. Any attempts to correlate the Coast Guard procurement workforce with the Federal Government procurement workforce are worthwhile.

4. Analyze Why People Leave

An analysis of why people leave Coast Guard procurement would be instructive for our retention efforts. This would be an excellent thesis topic for a Coast Guard NPS student.

5. **Utilize Postgraduate School Students**

Utilize NPS and other Coast Guard postgraduate students to do research for the Coast Guard. This is a tremendous opportunity that is simply being wasted.

6. **Analyze The Purchasing Clerk Workforce**

Much attention has been paid to the GS-1102 workforce throughout much of the Federal Government procurement field. Little attention has been paid to the GS-1105 (Purchasing Clerk) Series--this series is responsible for 97.2% of the purchasing actions in the Federal Government (which accounts for approximately 8.2% of the total dollars). Through the course of this research, there was significant dissatisfaction expressed over the adequacy of the Storekeeper School ciricuulum.

7. **Buying vs. Non--buying Commands**

Concern has also been expressed regarding the qualifications of those commands which have limited buying authority, but are not considered a contracting or purchasing office. Specifically, units with an officer who is assigned the procurement duties as a collateral duty (e.g. and Executive Officer on a Buoy Tender) and yet is not regularly considered for procurement training, need further attention. The use of the Small Purchases course arranged by G-FPM was an effort in this direction.

G. SUMMARY

As mentioned earlier, the time is now to seize the opportunity and improve procurement career management in the Coast Guard the way we want to. Not only have Congress and DOT opened the door, but the need has heightened even more with the reorganization changes the Coast Guard has,

is, and will be going through. The need will continue to get greater...the opportunity will not--unless we begin to get the front page encouragement everyone so dreads. To that I can only say "It wasn't raining when Noah built the arc". Successful implementation will require dedicated resources, without which we continue to give only lip service and the results will inevitably mirror those in the Comptroller's report to Congress in 1970.

Dr. Stone put it this way: "the mindset is changing, particularly when we improve the quality and applicability of training so that it is a positive experience". This same theme was reiterated by General Smith: "We must establish the mindset that procurement is a service organization and not merely in existence to comply". The Commandant of the Coast Guard has stated in his 1987 "State of the Coast Guard" that "readiness is something we'll emphasize"--training is a key element of readiness.

> The future capability of this work force is being endangered by lack of management attention. People are the most critical part of any procurement process. We have good people throughout all levels of procurement organizations today, but nowhere is it more apparent that concerted management attention is needed than in the area of organizing and planning for the procurement work force of the future. [Ref. 4:p. 7]

Without addressing procurement career management as a system we will continue to engage in "pedicide" (the art of shooting oneself in the foot). The costs are minimal compared to the wide range of benefits. The mission doesn't go away, we as managers must therefore be more creative in our approach to achieving that mission.

"When you reach for the stars, you may not quite get one, but you won't come up with a handful of mud either" [Ref. 57].

APPENDIX A.

Appendix A contains the survey issued to the Coast Guard Contracting Workforce as part of this research. The forced distribution responses are presented in a histogram format using the commercial software--"Microstat". The question that the data pertains to is indicated after the variable number. For example, the responses from question 35 are found under the results "Variable: 31 Q35".

Also included in this Appendix are the written responses to those questions that required a written response. This data is presented in no particular order and has not been edited except where the researcher felt a response may have targeted an individual (in which case the response would not be included at all) for identification.

The survey instrument went through several editions before its final form. The survey was constructed using a commmercial software--"Organizational Universal Survey System" (OUSS). The survey was pretested at a small Coast Guard Contracting office, wherein final minor changes (primarily dealing with clarification of instructions) were made.

Some respondents did not answer every question, this will account for some responses being indicated as outside specified class limits on the graphical presentation of data.

Additional information concerning the conduct of this survey or the results is avaialable from the researcher.

L. C. VOSE
SMC 2771 NPS
MONTEREY, CA
93943

Dear Coast Guard Acquisition Professional,

Enclosed is a questionnaire which is part of a comprehensive effort to develop a training and education plan for Coast Guard Acquisition Personnel.

This survey focuses on the career development of Contract Series Personnel (GS-1102 & Military Contracting Officers).

A separate survey will address the needs of the Purchasing Series (GS-1105 & comparable military) and Procurement Clerk/Assistant Series (GS-1106 & comparable military)

Won't you please take a few minutes now to help? This short survey takes only about 15 minutes to complete.

Your answers are completely anonymous. Please DO NOT sign your name. The results of this survey will be published in summary form only.

Please return this questionnaire as soon as possible in the enclosed envelope.

We need your frank answers to ensure the accuracy of this study, you cannot be identified from any of the questions. We need to know what you think are the key ingredients (needs, sources, organizational issues...) to a viable procurement training plan.

Thank you for your cooperation. Questions concerning this survey may be addressed to Mr. Lawrence VOSE (408) 384-5689.

L. C. VOSE

COAST GUARD CONTRACT SERIES (GS - 1102) TRAINING SURVEY

Below are 81 questions. Please fill in the blanks or circle the response on the scale for each item.

Response Scale: 1 - Strongly Agree
                 2 - Mildly Agree
                 3 - Neutral
                 4 - Mildly Disagree
                 5 - Strongly ·Disagree

WE'LL START WITH A FEW QUESTIONS ON PROCUREMENT TRAINING...

To what extent do you agree that.....

1. Formal procurement training is necessary for   1 2 3 4 5
   Contract Series personnel (GS-1102)to perform
   efficiently.

2. The formal procurement training I have received   1 2 3 4 5
   in the Coast Guard is sufficient to allow me to
   perform efficiently.

3. The Contracting Series (GS-1102) Civil Service   1 2 3 4 5
   Classification should be designated "professional"

4. The purchasing office I work in has a procurement   1 2 3 4 5
   training plan?

5. If your office has a procurement training plan   1 2 3 4 5
   is it kept current and updated as necessary?

6. I feel that my career development is suffering   1 2 3 4 5
   due to inadequate procurement training?

7. The on-the-job training I receive is sufficient   1 2 3 4 5
   to allow me to perform efficiently.

8. An entry-level criterion of business-related   1 2 3 4 5
   college courses should be established for
   contracting series personnel (GS-1102).

9. I have adequate time to attend training courses.   1 2 3 4 5

10. The travel & per diem funds are sufficient to   1 2 3 4 5
    support necessary training.

11. I am well informed about training opportunities.   1 2 3 4 5

12. There are not enough quotas for the training   1 2 3 4 5
    I need.

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13. Lack of supervisor approval prevents me from   1 2 3 4 5
    getting the training I need.

14. A college degree should be a requirement for   1 2 3 4 5
    the Contracting Series (GS-1102).

15. The frequency of formal classroom training   1 2 3 4 5
    conducted at my activity is adequate.

16. I have completed all of the required courses for   1 2 3 4 5
    my present position.

17. I personally have the time necessary to   1 2 3 4 5
    support a comprehensive training program.

18. A certification exam should be required for   1 2 3 4 5
    Contracting Series personnel (GS-1102).

19. My purchasing office regularly sends people to   1 2 3 4 5
    training opportunities.

20. What is the primary reason for not doing training?   1 2 3 4 5

    1 - Is it due to lack of funding for training?
    2 - Is it due to lack of time for training?
    3 - Is it because the training is not relevant to the CG?
    4 - Is it due to a lack of awareness of the training
        opportunities available?
    5 - Other (Please explain):_____

21. What level of experience do most of your training   1 2 3 4 5
    opportunities presume?

    1 - Basic/entry level
    2 - Intermediate
    3 - Advanced
    4 - Unknown
    5 - Not applicable

22. Who is responsible for accomplishing procurement   1 2 3 4 5
    training at your office?

    1 - Your supervisor
    2 - Each individual is responsible on his/her own.
    3 - A designated training officer
    4 - No one is specifically assigned.
    5 - Other (please explain)_____

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23. How do you find out about training & education   1 2 3 4 5
    opportunities?

    1 - My supervisor or Training Officer
    2 - From friends or other office workers
    3 - From trade publications
    4 - I rarely find out about training except by chance.
    5 - Other (please explain):_____
    _____

24. In what area would you most like to receive formal training?
    (circle only one).

    1 FEDERAL CONTRACTING BASICS   5 WORKING WITH THE FAR
    2 CONTRACT PRICING   6 CONSTRUCTION CONTRACTING
    3 SPARE PARTS PROCUREMENT   7 INCENTIVE CONTRACTING
    4 MANAGING CONTRACT CHANGES   8 ADP CONTRACTING

            9   COMPETITIVE PROPOSALS CONTRACTING
           10   COMMERCIAL PRODUCTS CONTRACTING
           11   OTHER:_____

25. How should training courses be conducted and why? (circle
    only one)

    1 LOCALLY PREPARED AND ADMINISTERED
    2 THROUGH OTHER FEDERAL AGENCIES
    3 IN CONJUNCTION WITH OTHER COAST GUARD COMMANDS
    4 COMMERCIALLY PREPARED AND ADMINISTERED
    5 NOT AT ALL.
    6 OTHER:(please explain):_____

    WHY?:_____

26. How do you keep up with changes to laws and regulations?
    (circle only one)

    1 THROUGH MY OWN EFFORTS
    2 MY SUPERVISOR KEEPS US UP TO DATE
    3 THROUGH AN INFORMAL OFFICE NETWORK
    4 GENERALLY I FIND OUT WHEN I DO SOMETHING INCORRECT
    5 OTHER (please explain):_____

27. Please indicate below by marking an "X" next to those formal
    procurement courses of instruction you have taken.   If you
    have taken other please identify them in the "other" block).

    _____Defense Small Purchases
    _____Defense Contract Administration
    _____Management of Defense Acquisition Contracts (Basic)
    _____Defense Cost and Price Analysis
    _____Advanced Contract Administration
    _____Defense Contract Negotiation Workshop
    _____Other(s):_____

28. Are there any performance problems that you can identify that are a direct result of inadequate procurement training?

_____
_____
_____

29. What is the <u>most</u> effective procurement training you have had and why?

_____
_____
_____

30. What is the <u>least</u> effective procurement training you have had and why?

_____
_____
_____

TURNING NOW TO THE ACQUISITION ENVIRONMENT.......

31. How is work distributed in your office?   1 2 3 4 5

    1 BY COMMODITY
    2 BY A GROUPING OF CUSTOMERS (I.E. DESIGNATED UNITS).
    3 BY LEVEL OF DIFFICULTY
    4 BY DOLLAR AMOUNT.
    5 OTHER (please explain):_____

32. Jobs are rotated periodically within my purchas-   1 2 3 4 5
    ing office to broaden contract specialist's
    experience.

33. There is an overlapping of the tasks I am   1 2 3 4 5
    required to perform with those of someone else
    in a different classification (for example:
    GS 1105's do the same job as GS 1102's?).

34. There a distinction between the jobs I do and   1 2 3 4 5
    those done by someone of a higher or lower level?
    (same series but different level).

35. Our organization has instituted a "career bridging"   1 2 3 4 5
    program permitting progression from the GS-1105
    to the GS-1102 series.

36. When you go on leave, are sick or otherwise gone   1 2 3 4 5
    for not more than a week, what is done with your
    work?

    1 NOTHING, IT SITS UNTIL MY RETURN
    2 MY SUPERVISOR GIVES IT TO ANOTHER OFFICE WORKER
    3 I ARRANGE WITH ANOTHER OFFICE WORKER TO DO IT.
    4 MY SUPERVISOR DOES IT
    5 OTHER (please explain): _____

37. Using the same scale above, what if you are   1 2 3 4 5
    gone for two weeks?

38. Again using the same scale, what if you are gone   1 2 3 4 5
    for three weeks?

39. The contracting regulations and policies I work   1 2 3 4 5
    under allow me to exercise sound business judgement.

40. The laws, regulations, and policies written to   1 2 3 4 5
    guide Government procurement personnel are
    positive contributions to obtaining fairly and
    reasonably priced products and services?

41. I spend most of my time carrying out well   1 2 3 4 5
    defined tasks rather than "making decisions".

42. I can usually find an acceptable answer to my   1 2 3 4 5
    procurement questions in a contracting
    regulation or SOP.

43. I frequently must choose an "expedient" course   1 2 3 4 5
    of action rather than take the time to search for
    the "best" solution to a procurement request.

44. In general, I feel that I am able, under the   1 2 3 4 5
    guidelines given to me, to obtain fair and
    reasonably priced goods and services of
    satisfactory quality.

45. If I cannot find a specific answer to my   1 2 3 4 5
    procurement question I do things because "that's
    the way we always have".

46. I use a computer to help me carry out my   1 2 3 4 5
    procurement functions.

47. There is a well maintained purchasing library at   1 2 3 4 5
    my office.

48. My office subscribes to professional journals.   1 2 3 4 5

49. My office has a local handbook or deskguide to   1 2 3 4 5
    assist in the purchasing function.

50. If you have a deskguide, is it up to date?   1 2 3 4 5

51. A deskguide be helpful and worth developing.   1 2 3 4 5

52. There is a direct link between organizational   1 2 3 4 5
    rewards and activities that are important to the
    acquisition process.

53. I am more qualified than my industry counterparts.   1 2 3 4 5

54. The performance goals of my job are clear to me.   1 2 3 4 5

55. My supervisor is a credible source for information   1 2 3 4 5
    and guidance.

56. My supervisor has sufficient time to provide the   1 2 3 4 5
    appropriate levels of supervision.

57. The guidance received from my supervisor conflicts   1 2 3 4 5
    with that received from the rules and regulations.

58. Please rank order the importance of the selected
    organizational rewards (from highest to lowest)
                                           1   9

    ____Promotions
    ____Pay Increases
    ____Ability to Work Independently
    ____Good Working Conditions
    ____Training Opportunities
    ____Formal Recognition
    ____Cash Awards
    ____Verbal Recognition
    ____"Choice" Job Assignments

59. Please rank order the importance of the selected
    motivating factors (from highest to lowest)
                                           1   9

    ____Pay and Benefits
    ____Challenge of the Job
    ____Service to My Country
    ____Getting the "Best" for the U.S.
    ____Interaction With Interesting People
    ____Training Opportunities
    ____Good Relations With Coworkers
    ____Prestige
    ____Opportunity to be Creative

60. The space and equipment provided are adequate   1 2 3 4 5
    for me to do my job efficiently.

61. The computer resources available are adequate   1 2 3 4 5
    for me to do my job efficiently.

62. The clerical support available is adequate   1 2 3 4 5
    for me to do my job efficiently.

63. What is the primary organizational goal of your   1 2 3 4 5
    purchasing office?

    1   TO REDUCE PALT
    2   TO INCREASE THE % OF CONTRACTS COMPETED
    3   TO INCREASE THE TOTAL NUMBER OF CONTRACTS PROCESSED
    4   ACHIEVEMENT OF SOCIOECONOMIC GOALS
    5   OTHER: (please explain)_____

64. The goals of my purchasing office are reflected   1 2 3 4 5
    in writing in a policy statement.

65. Are the goals and objectives of your office   1 2 3 4 5
    reflected in the criteria you are evaluated on?

FINALLY, WE WOULD LIKE TO KNOW A FEW FACTS ABOUT YOUR BACKGROUND
FOR STATISTICAL PURPOSES (FOR EXAMPLE - TO MAKE COMPARISONS
WITH YOUR COUNTERPARTS IN THE DEPARTMENT OF DEFENSE). AGAIN,
THIS SURVEY IS CONFIDENTIAL AND COMPLETELY ANONYMOUS; IF FOR
ANY REASON YOU DO NOT DESIRE TO ANSWER A QUESTION, PLEASE SKIP
IT AND KEEP GOING.

66. What is the highest level of education you completed?
    (circle one)

    1 HIGH SCHOOL   3 SOME COLLEGE (1-3 YRS)
    2 VOCATIONAL/TECH SCHOOL   4 COLLEGE GRADUATE

        5 SOME POST-GRADUATE OR PROFESSIONAL COURSEWORK
        6 POST-GRADUATE OR PROFESSIONAL DEGREE

67. What was your major field/area of study for your highest
    level of education? (ANSWER EVEN IF YOU DID NOT RECEIVE THE
    DEGREE OR COMPLETE THE PROGRAM) (circle one)

    1 BUSINESS   4 ENGINEERING
    2 LAW   5 PUBLIC ADMINISTRATION
    3 LIBERAL ARTS   6 OTHER:_____

68. Please indicate whether you have been designated as one or
    more of the following:(circle one)

    1 CERTIFIED PROFESSIONAL CONTRACTS MANAGER
    2 CERTIFIED ASSOCIATE CONTRACTS MANAGER
    3 CERTIFIED PURCHASING MANAGER
    4 OTHER:_____
    5 NOT CERTIFIED

69. Which of the following best describes the type of procure-
    ments with which you are involved? (circle only one)

    1 SUPPLY CONTRACTS   2 RESEARCH AND DEVELOPMENT
    3 SERVICES   4 SYSTEMS ACQUISITIONS
    5 CONSTRUCTION   6 OTHER:_____

70. With what size procurements do you work with most frequently?

    1 UNDER $1,000   2 $1,000 - $10,000
    3 $10,000 - $25,000   4 $25,000 - $100,000
    5 $100,000 - $1 MILLION   6 $1 MILLION - $25 MILLION

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71. Are you a warranted Contracting Officer? (if yes, please circle the level of your warrant) (circle one).

    1 NO, I AM NOT WARRANTED
    2 YES, I AM WARRANTED UP TO $10,000
    3 YES, I AM WARRANTED UP TO $25,000
    4 YES, I AM WARRANTED UP TO $100,000
    5 YES, I HAVE AN UNLIMITED WARRANT.

72. How long have you been at your present job?

    1 LESS THAN ONE YEAR   2 1 - 3 YEARS
    3 4 - 6 YEARS   4 7 - 10 YEARS
    5 11 - 15 YEARS   6 16 YEARS AND OVER

73. What is your present age?

    1 25 AND UNDER   2 25 - 30 YEARS OLD
    3 30 - 35 YEARS OLD   4 35 - 40 YEARS OLD
    5 40 - 45 YEARS OLD   6 45 - 50 YEARS OLD
    7 50 - 55 YEARS OLD   8 OVER 55 YEARS OLD

74. What is your sex?

    1 FEMALE   2 MALE

75. What is your job classification?

    1 GS - 1102   2 GS - 1105
    3 GS - 1106   4 OTHER:_____

76. What is your grade or pay level?

    1 GS 5/7   2 01/02
    3 GS 9/12   4 03/04
    5 GS 13/15   6 05 AND ABOVE

77. What is your job description?

    1 CONTRACT SPECIALIST   2 CONTRACT NEGOTIATOR
    3 CONTRACT ADMINISTRATOR   4 PROCUREMENT ANALYST
    5 PRICE ANALYST

78. How many years of procurement experience do you have?

    1 LESS THAN ONE YEAR   2 1 - 3 YEARS
    3 4 - 6 YEARS   4 7 - 10 YEARS
    5 11 - 15 YEARS   6 16 YEARS AND OVER

79. With what organization/sector is the bulk of your procurement experience? (circle only one)

    1   MOST OF MY EXPERIENCE IS WITH THE COAST GUARD
    2   MOST OF MY EXPERIENCE IS WITH ANOTHER FEDERAL AGENCY
    3   MOST OF MY EXPERIENCE IS WITH THE COMMERCIAL SECTOR
    4   OTHER (please explain): _____

80. What was most influential in your decision to take your present job?

    1   THE LOCATION   2   MY FRIENDS
    3   THE PROMOTION OPPORTUNITIES   4   THE PAY

        5   I ENJOY WORKING FOR THE COAST GUARD
        6   OTHER (please explain): _____

81. To what extent are you satisfied with your present job?

    1   VERY SATISFIED   2   SATISFIED
    3   NEUTRAL   4   DISSATISFIED

            5   VERY DISSATISFIED

WHY?: _____

THANK YOU FOR YOUR TIME IN ANSWERING THIS SURVEY. WE ARE INTERESTED IN ANY COMMENTS YOU WOULD LIKE TO MAKE ABOUT THE TRAINING AND EDUCATION FOR COAST GUARD ACQUISITION PERSONNEL, ALL RESPONSES ARE CONFIDENTIAL.

_____
_____
_____
_____
_____
_____

```
------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75


        VARIABLE: 1. Q1

                                          ....CUMULATIVE...
    ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
          1.00              80      95.24        80      95.24
          2.00               4       4.76        84     100.00
          3.00               0        .00        84     100.00
          4.00               0        .00        84     100.00
          5.00               0        .00        84     100.00
                    TOTAL    84     100.00

  5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


    ===== VALUE =====   FREQUENCY ...............................
          1.00              80  !===============================
          2.00               4  !=
          3.00               0  !
          4.00               0  !
          5.00               0  !




------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75


        VARIABLE: 2. Q2

                                          ....CUMULATIVE...
    ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
          1.00              25      30.86        25      30.86
          2.00              34      41.98        59      72.84
          3.00               9      11.11        68      83.95
          4.00               5       6.17        73      90.12
          5.00               8       9.88        81     100.00
                    TOTAL    81     100.00

  8 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


    ===== VALUE =====   FREQUENCY ...............................
          1.00              25  !=====================
          2.00              34  !============================
          3.00               9  !=======
          4.00               5  !====
          5.00               8  !======
```

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 3. Q3

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	62	77.50	62	77.50
2.00	8	10.00	70	87.50
3.00	9	11.25	79	98.75
4.00	0	.00	79	98.75
5.00	1	1.25	80	100.00
TOTAL	80	100.00		

9 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	62	===========================
2.00	8	===
3.00	9	====
4.00	0	
5.00	1	

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 4. Q4

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	39	46.99	39	46.99
2.00	9	10.84	48	57.83
3.00	6	7.23	54	65.06
4.00	8	9.64	62	74.70
5.00	21	25.30	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	39	============================
2.00	9	======
3.00	6	====
4.00	8	=====
5.00	21	==============

228

```
-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS     LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


         VARIABLE: 5. Q5

                                            ....CUMULATIVE...
        ===== VALUE =====    FREQUENCY    PERCENT    FREQUENCY  PERCENT
               1.00              29        36.71         29       36.71
               2.00               7         8.86         36       45.57
               3.00              10        12.66         46       58.23
               4.00               9        11.39         55       69.62
               5.00              24        30.38         79      100.00
                           TOTAL  79       100.00

10 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


        ===== VALUE =====    FREQUENCY ..............................
               1.00              29  !==============================
               2.00               7  !=======
               3.00              10  !==========
               4.00               9  !=========
               5.00              24  !========================
```

```
-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS     LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


         VARIABLE: 6. Q6

                                            ....CUMULATIVE...
        ===== VALUE =====    FREQUENCY    PERCENT    FREQUENCY  PERCENT
               1.00               9        10.71          9       10.71
               2.00              15        17.86         24       28.57
               3.00               9        10.71         33       39.29
               4.00               7         8.33         40       47.62
               5.00              44        52.38         84      100.00
                           TOTAL  84       100.00

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


        ===== VALUE =====    FREQUENCY ..............................
               1.00               9  !=====
               2.00              15  !=========
               3.00               9  !=====
               4.00               7  !====
               5.00              44  !=============================
```

```
------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


        VARIABLE: 7. Q7

                                             ....CUMULATIVE...
    ===== VALUE =====    FREQUENCY    PERCENT   FREQUENCY PERCENT
            1.00              16       19.28        16      19.28
            2.00              26       31.33        42      50.60
            3.00              17       20.48        59      71.08
            4.00              11       13.25        70      84.34
            5.00              13       15.66        83     100.00
                      TOTAL   83      100.00

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


    ===== VALUE =====    FREQUENCY ..............................
            1.00              16  :=================
            2.00              26  :===========================
            3.00              17  :==================
            4.00              11  :============
            5.00              13  :==============
```

```
------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


        VARIABLE: 8. Q8

                                             ....CUMULATIVE...
    ===== VALUE =====    FREQUENCY    PERCENT   FREQUENCY PERCENT
            1.00              33       39.76        33      39.76
            2.00              18       21.69        51      61.45
            3.00               9       10.84        60      72.29
            4.00              11       13.25        71      85.54
            5.00              12       14.46        83     100.00
                      TOTAL   83      100.00

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


    ===== VALUE =====    FREQUENCY ..............................
            1.00              33  :==========================
            2.00              18  :===============
            3.00               9  :=======
            4.00              11  :=========
            5.00              12  :=========
```

---------------------- FREQUENCY DISTRIBUTIONS ----------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 50   NUMBER OF VARIABLES: 75

        VARIABLE: 8. Q8

                        Q8. Female

                                              ....CUMULATIVE...
        ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
            1.00   16   36.36   16   36.36
            2.00   8   18.18   24   54.55
            3.00   7   15.91   31   70.45
            4.00   4   9.09   35   79.55
            5.00   9   20.45   44   100.00
                          TOTAL   44   100.00

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

        ===== VALUE =====   FREQUENCY ....
            1.00   16 |================================
            2.00   8 |================
            3.00   7 |==============
            4.00   4 |=======
            5.00   9 |==================

---------------------- FREQUENCY DISTRIBUTIONS ----------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 39   NUMBER OF VARIABLES: 75

        VARIABLE: 8. Q8

                        Q8. Male

                                              ....CUMULATIVE...
        ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
            1.00   17   43.59   17   43.59
            2.00   10   25.64   27   69.23
            3.00   2   5.13   29   74.36
            4.00   7   17.95   36   92.31
            5.00   3   7.69   39   100.00
                          TOTAL   39   100.00

        ===== VALUE =====   FREQUENCY ....
            1.00   17 |==============================
            2.00   10 |=================
            3.00   2 |===
            4.00   7 |===========
            5.00   3 |=====

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 72   NUMBER OF VARIABLES: 75

        VARIABLE: 8. Q8

                    Q8. Civilian

                                          ....CUMULATIVE...
    ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
            1.00   25   37.88   25   37.88
            2.00   14   21.21   39   59.09
            3.00   8   12.12   47   71.21
            4.00   8   12.12   55   83.33
            5.00   11   16.67   66   100.00
                       TOTAL 66   100.00

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

    ===== VALUE =====   FREQUENCY ....
            1.00   25 |===============================
            2.00   14 |=================
        .   3.00   8 |==========
            4.00   8 |=========
            5.00   11 |=============

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 75

        VARIABLE: 8. Q8

                    Q8. Military

                                          ....CUMULATIVE...
    ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
            1.00   8   47.06   8   47.06
            2.00   4   23.53   12   70.59
            3.00   1   5.88   13   76.47
            4.00   3   17.65   16   94.12
            5.00   1   5.88   17   100.00
                       TOTAL 17   100.00

    ===== VALUE =====   FREQUENCY ....
            1.00   8 |===============================
            2.00   4 |==============
            3.00   1 |===
            4.00   3 |==========
            5.00   1 |===

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 47   NUMBER OF VARIABLES: 75

VARIABLE: 8. Q8

Q8. Civilian - Female

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	15	36.59	15	36.59
2.00	8	19.51	23	56.10
3.00	7	17.07	30	73.17
4.00	3	7.32	33	80.49
5.00	8	19.51	41	100.00
TOTAL	41	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	15	!============================
2.00	8	!===============
3.00	7	!=============
4.00	3	!=====
5.00	8	!===============

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 25   NUMBER OF VARIABLES: 75

VARIABLE: 8. Q8

Q8. Civilian - Male

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	10	40.00	10	40.00
2.00	6	24.00	16	64.00
3.00	1	4.00	17	68.00
4.00	5	20.00	22	88.00
5.00	3	12.00	25	100.00
TOTAL	25	100.00		

===== VALUE =====	FREQUENCY	....
1.00	10	!==============================
2.00	6	!================
3.00	1	!==
4.00	5	!=============
5.00	3	!=======

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 9. Q9

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	27	32.14	27	32.14
2.00	16	19.05	43	51.19
3.00	15	17.86	58	69.05
4.00	12	14.29	70	83.33
5.00	14	16.67	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	27	!=============================
2.00	16	!=================
3.00	15	!================
4.00	12	!============
5.00	14	!==============

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 10. Q10

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	27	32.53	27	32.53
2.00	15	18.07	42	50.60
3.00	15	18.07	57	68.67
4.00	6	7.23	63	75.90
5.00	20	24.10	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	27	!=============================
2.00	15	!================
3.00	15	!================
4.00	6	!=====
5.00	20	!====================

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 11. Q11

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	27	32.53	27	32.53
2.00	19	22.89	46	55.42
3.00	11	13.25	57	68.67
4.00	16	19.28	73	87.95
5.00	10	12.05	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	27	=================================
2.00	19	===================
3.00	11	===========
4.00	16	================
5.00	10	==========

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 12. Q12

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	24	29.27	24	29.27
2.00	9	10.98	33	40.24
3.00	19	23.17	52	63.41
4.00	11	13.41	63	76.83
5.00	19	23.17	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	24	=================================
2.00	9	==========
3.00	19	====================
4.00	11	============
5.00	19	====================

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 13. Q13

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	12	14.29	12	14.29
2.00	5	5.95	17	20.24
3.00	8	9.52	25	29.76
4.00	8	9.52	33	39.29
5.00	51	60.71	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	12	!======
2.00	5	!==
3.00	8	!====
4.00	8	!====
5.00	51	!=============================

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	11	13.10	11	13.10
2.00	10	11.90	21	25.00
3.00	15	17.86	36	42.86
4.00	11	13.10	47	55.95
5.00	37	44.05	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	11	!========
2.00	10	!=======
3.00	15	!===========
4.00	11	!========
5.00	37	!============================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 50   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

Q14. Female

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	6	13.33	6	13.33
2.00	2	4.44	8	17.78
3.00	10	22.22	18	40.00
4.00	4	8.89	22	48.89
5.00	23	51.11	45	100.00
TOTAL	45	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	6	|=======
2.00	2	|==
3.00	10	|============
4.00	4	|=====
5.00	23	|===========================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 39   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

Q14. Male

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	5	12.82	5	12.82
2.00	8	20.51	13	33.33
3.00	5	12.82	18	46.15
4.00	7	17.95	25	64.10
5.00	14	35.90	39	100.00
TOTAL	39	100.00		

===== VALUE =====	FREQUENCY	....
1.00	5	|=========
2.00	8	|===============
3.00	5	|=========
4.00	7	|=============
5.00	14	|==========================

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 72   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

Q14. Civilian

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	9	13.43	9	13.43
2.00	8	11.94	17	25.37
3.00	10	14.93	27	40.30
4.00	9	13.43	36	53.73
5.00	31	46.27	67	100.00
TOTAL	67	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	9	!========
2.00	8	!=======
3.00	10	!=========
4.00	9	!========
5.00	31	!===============================

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

Q14. Military

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	2	11.76	2	11.76
2.00	2	11.76	4	23.53
3.00	5	29.41	9	52.94
4.00	2	11.76	11	64.71
5.00	6	35.29	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	2	!=========
2.00	2	!=========
3.00	5	!=====================
4.00	2	!=========
5.00	6	!===========================

---------------------- FREQUENCY DISTRIBUTIONS ----------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 47   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

Q14. Civilian - Female

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	6	14.29	6	14.29
2.00	2	4.76	8	19.05
3.00	10	23.81	18	42.86
4.00	3	7.14	21	50.00
5.00	21	50.00	42	100.00
TOTAL	42	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	6	|========
2.00	2	|==
3.00	10	|=============
4.00	3	|====
5.00	21	|============================

---------------------- FREQUENCY DISTRIBUTIONS ----------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: female
NUMBER OF CASES: 25   NUMBER OF VARIABLES: 75

VARIABLE: 14. Q14

Q14. Civilian - Male

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	3	12.00	3	12.00
2.00	6	24.00	9	36.00
3.00	0	.00	9	36.00
4.00	6	24.00	15	60.00
5.00	10	40.00	25	100.00
TOTAL	25	100.00		

===== VALUE =====	FREQUENCY	....
1.00	3	|========
2.00	6	|================
3.00	0	|
4.00	6	|===============
5.00	10	|=========== ==================

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

        VARIABLE: 15. Q15

                                              ....CUMULATIVE...
    ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
           1.00   10   12.05   10   12.05
           2.00   11   13.25   21   25.30
           3.00   18   21.69   39   46.99
           4.00   9   10.84   48   57.83
           5.00   35   42.17   83   100.00
                      TOTAL   83   100.00

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

    ===== VALUE =====   FREQUENCY ....
           1.00   10 |========
           2.00   11 |=========
           3.00   18 |==============
           4.00   9 |=======
           5.00   35 |============================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

        VARIABLE: 16. Q16

                                              ....CUMULATIVE...
    ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
           1.00   32   38.10   32   38.10
           2.00   9   10.71   41   48.81
           3.00   5   5.95   46   54.76
           4.00   8   9.52   54   64.29
           5.00   30   35.71   84   100.00
                      TOTAL   84   100.00

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

    ===== VALUE =====   FREQUENCY ....
           1.00   32 |=========================
           2.00   9 |========
           3.00   5 |====
           4.00   8 |=======
           5.00   30 |=========================

240

```
------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


      VARIABLE: 17. Q17

                                                ....CUMULATIVE...
      ===== VALUE =====    FREQUENCY    PERCENT    FREQUENCY PERCENT
            1.00                23       27.71        23      27.71
            2.00                15       18.07        38      45.78
            3.00                 9       10.84        47      56.63
            4.00                17       20.48        64      77.11
            5.00                19       22.89        83     100.00
                        TOTAL   83      100.00

  6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


      ===== VALUE =====    FREQUENCY ................................
            1.00                23  !============================
            2.00                15  !==================
            3.00                 9  !===========
            4.00                17  !====================
            5.00                19  !======================
```

```
------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


      VARIABLE: 18. Q18

                                                ....CUMULATIVE...
      ===== VALUE =====    FREQUENCY    PERCENT    FREQUENCY PERCENT
            1.00                23       27.71        23      27.71
            2.00                14       16.87        37      44.58
            3.00                14       16.87        51      61.45
            4.00                10       12.05        61      73.49
            5.00                22       26.51        83     100.00
                        TOTAL   83      100.00

  6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


      ===== VALUE =====    FREQUENCY ................................
            1.00                23  !=============================
            2.00                14  !================
            3.00                14  !================
            4.00                10  !===========
            5.00                22  !=========================
```

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 19. Q19

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	42	50.60	42	50.60
2.00	24	28.92	66	79.52
3.00	4	4.82	70	84.34
4.00	7	8.43	77	92.77
5.00	6	7.23	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	42	!=============================
2.00	24	!================
3.00	4	!==
4.00	7	!====
5.00	6	!====

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 20. Q20

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	13	15.66	13	15.66
2.00	34	40.96	47	56.63
3.00	2	2.41	49	59.04
4.00	14	16.87	63	75.90
5.00	20	24.10	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	13	!===========
2.00	34	!============================
3.00	2	!=
4.00	14	!==========
5.00	20	!================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 21. Q21

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	20	23.26	20	23.26
2.00	43	50.00	63	73.26
3.00	15	17.44	78	90.70
4.00	5	5.81	83	96.51
5.00	3	3.49	86	100.00
TOTAL	86	100.00		

3 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	20	:=============
2.00	43	:=============================
3.00	15	:==========
4.00	5	:===
5.00	3	:==

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 22. Q22

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	26	29.55	26	29.55
2.00	19	21.59	45	51.14
3.00	26	29.55	71	80.68
4.00	13	14.77	84	95.45
5.00	4	4.55	88	100.00
TOTAL	88	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	26	:============================
2.00	19	:====================
3.00	26	:============================
4.00	13	:=============
5.00	4	:====

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 23. Q23

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	40	44.94	40	44.94
2.00	6	6.74	46	51.69
3.00	22	24.72	68	76.40
4.00	11	12.36	79	88.76
5.00	10	11.24	89	100.00
TOTAL	89	100.00		

===== VALUE =====	FREQUENCY	....
1.00	40	|============================
2.00	6	|====
3.00	22	|===============
4.00	11	|=======
5.00	10	|=======

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 24. Q24

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	5	5.81	5	5.81
2.00	13	15.12	18	20.93
3.00	8	9.30	26	30.23
4.00	7	8.14	33	38.37
5.00	10	11.63	43	50.00
6.00	8	9.30	51	59.30
7.00	2	2.33	53	61.63
8.00	3	3.49	56	65.12
9.00	14	16.28	70	81.40
10.00	0	.00	70	81.40
11.00	16	18.60	86	100.00
TOTAL	86	100.00		

3 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	5	|=========
2.00	13	|=====================
3.00	8	|==============
4.00	7	|============
5.00	10	|=================
6.00	8	|==============
7.00	2	|===
8.00	3	|=====
9.00	14	|=======================
10.00	0	|
11.00	16	|===========================

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 25. Q25

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	7	8.54	7	8.54
2.00	18	21.95	25	30.49
3.00	23	28.05	48	58.54
4.00	19	23.17	67	81.71
5.00	1	1.22	68	82.93
6.00	14	17.07	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	7	|========
2.00	18	|====================
3.00	23	|==========================
4.00	19	|=====================
5.00	1	|=
6.00	14	|================

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 26. Q26

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	33	40.24	33	40.24
2.00	18	21.95	51	62.20
3.00	17	20.73	68	82.93
4.00	4	4.88	72	87.80
5.00	10	12.20	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	33	|============================
2.00	18	|===============
3.00	17	|==============
4.00	4	|===
5.00	10	|=======

------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

     VARIABLE: 27. Q31

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	6	6.74	6	6.74
2.00	16	17.98	22	24.72
3.00	24	26.97	46	51.69
4.00	13	14.61	59	66.29
5.00	30	33.71	89	100.00
TOTAL	89	100.00		

===== VALUE =====	FREQUENCY	....
1.00	6	=====
2.00	16	================
3.00	24	========================
4.00	13	=============
5.00	30	==============================

------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

     VARIABLE: 28. Q32

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	18	21.95	18	21.95
2.00	6	7.32	24	29.27
3.00	10	12.20	34	41.46
4.00	4	4.88	38	46.34
5.00	44	53.66	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	18	==========
2.00	6	===
3.00	10	======
4.00	4	==
5.00	44	===============================

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 29. Q33

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	6	7.50	6	7.50
2.00	8	10.00	14	17.50
3.00	12	15.00	26	32.50
4.00	6	7.50	32	40.00
5.00	48	60.00	80	100.00
TOTAL	80	100.00		

9 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	6	﹗===
2.00	8	﹗====
3.00	12	﹗=======
4.00	6	﹗===
5.00	48	﹗============================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 30. Q34

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	29	34.94	29	34.94
2.00	13	15.66	42	50.60
3.00	8	9.64	50	60.24
4.00	14	16.87	64	77.11
5.00	19	22.89	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	29	﹗==============================
2.00	13	﹗=============
3.00	8	﹗========
4.00	14	﹗=============
5.00	19	﹗=================

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------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


     VARIABLE: 31. Q35


                                              ....CUMULATIVE...
     ===== VALUE =====     FREQUENCY    PERCENT    FREQUENCY  PERCENT
              1.00              10        12.82         10       12.82
              2.00              11        14.10         21       26.92
              3.00              13        16.67         34       43.59
              4.00               4         5.13         38       48.72
              5.00              40        51.28         78      100.00
                          TOTAL  78       100.00

11 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


     ===== VALUE =====     FREQUENCY .............................
              1.00              10  |=======
              2.00              11  |=======
              3.00              13  |=========
              4.00               4  |==
              5.00              40  |============================




------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89    NUMBER OF VARIABLES: 75


     VARIABLE: 32. Q36


                                              ....CUMULATIVE...
     ===== VALUE =====     FREQUENCY    PERCENT    FREQUENCY  PERCENT
              1.00              35        41.18         35       41.18
              2.00              18        21.18         53       62.35
              3.00              10        11.76         63       74.12
              4.00               6         7.06         69       81.18
              5.00              16        18.82         85      100.00
                          TOTAL  85       100.00

4 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


     ===== VALUE =====     FREQUENCY .............................
              1.00              35  |=============================
              2.00              18  |=============
              3.00              10  |========
              4.00               6  |====
              5.00              16  |============
```

248

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

        VARIABLE: 33. Q37

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	26	29.55	26	29.55
2.00	24	27.27	50	56.82
3.00	13	14.77	63	71.59
4.00	8	9.09	71	80.68
5.00	17	19.32	88	100.00
TOTAL	88	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	26	!=============================
2.00	24	!==========================
3.00	13	!==============
4.00	8	!=========
5.00	17	!==================

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

        VARIABLE: 34. Q38

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	20	23.26	20	23.26
2.00	28	32.56	48	55.81
3.00	11	12.79	59	68.60
4.00	10	11.63	69	80.23
5.00	17	19.77	86	100.00
TOTAL	86	100.00		

3 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	20	!=================
2.00	28	!==========================
3.00	11	!===========
4.00	10	!==========
5.00	17	!================

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 35. Q39

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	34	40.48	34	40.48
2.00	24	28.57	58	69.05
3.00	7	8.33	65	77.38
4.00	12	14.29	77	91.67
5.00	7	8.33	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	34	|============================
2.00	24	|===================
3.00	7	|=====
4.00	12	|==========
5.00	7	|=====

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 36. Q40

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	22	26.19	22	26.19
2.00	27	32.14	49	58.33
3.00	13	15.48	62	73.81
4.00	15	17.86	77	91.67
5.00	7	8.33	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	22	|====================
2.00	27	|============================
3.00	13	|=============
4.00	15	|===============
5.00	7	|=======

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 37. Q41

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	10	12.05	10	12.05
2.00	13	15.66	23	27.71
3.00	10	12.05	33	39.76
4.00	19	22.89	52	62.65
5.00	31	37.35	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	10	=========
2.00	13	=============
3.00	10	=========
4.00	19	==================
5.00	31	==============================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 38. Q42

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	25	29.76	25	29.76
2.00	34	40.48	59	70.24
3.00	9	10.71	68	80.95
4.00	10	11.90	78	92.86
5.00	6	7.14	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	25	====================
2.00	34	===============================
3.00	9	=======
4.00	10	========
5.00	6	=====

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 39. Q43

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	18	21.69	18	21.69
2.00	25	30.12	43	51.81
3.00	11	13.25	54	65.06
4.00	12	14.46	66	79.52
5.00	17	20.48	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	18	!==================
2.00	25	!==========================
3.00	11	!============
4.00	12	!=============
5.00	17	!=================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 40. Q44

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	38	48.10	38	48.10
2.00	22	27.85	60	75.95
3.00	12	15.19	72	91.14
4.00	7	8.86	79	100.00
5.00	0	.00	79	100.00
TOTAL	79	100.00		

10 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	38	!============================
2.00	22	!===============
3.00	12	!========
4.00	7	!=====
5.00	0	!

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 41. Q45

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	9	10.71	9	10.71
2.00	8	9.52	17	20.24
3.00	12	14.29	29	34.52
4.00	20	23.81	49	58.33
5.00	35	41.67	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	9	|=======
2.00	8	|======
3.00	12	|=========
4.00	20	|================
5.00	35	|===========================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 42. Q46

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	31	36.90	31	36.90
2.00	14	16.67	45	53.57
3.00	6	7.14	51	60.71
4.00	5	5.95	56	66.67
5.00	28	33.33	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	31	|============================
2.00	14	|=============
3.00	6	|=====
4.00	5	|====
5.00	28	|========================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

     VARIABLE: 43. Q47

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	29	34.94	29	34.94
2.00	13	15.66	42	50.60
3.00	7	8.43	49	59.04
4.00	12	14.46	61	73.49
5.00	22	26.51	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====   FREQUENCY ....
     1.00   29 |==============================
     2.00   13 |==============
     3.00   7 |=======
     4.00   12 |============
     5.00   22 |======================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

     VARIABLE: 44. Q48

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	40	48.78	40	48.78
2.00	16	19.51	56	68.29
3.00	8	9.76	64	78.05
4.00	4	4.88	68	82.93
5.00	14	17.07	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====   FREQUENCY ....
     1.00   40 |================================
     2.00   16 |===========
     3.00   8 |=====
     4.00   4 |==
     5.00   14 |==========

254

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 45. Q49

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	31	38.27	31	38.27
2.00	9	11.11	40	49.38
3.00	7	8.64	47	58.02
4.00	7	8.64	54	66.67
5.00	27	33.33	81	100.00
TOTAL	81	100.00		

8 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	31	!============================
2.00	9	!========
3.00	7	!======
4.00	7	!======
5.00	27	!========================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 46. Q50

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	26	35.14	26	35.14
2.00	5	6.76	31	41.89
3.00	13	17.57	44	59.46
4.00	2	2.70	46	62.16
5.00	28	37.84	74	100.00
TOTAL	74	100.00		

15 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	26	!==========================
2.00	5	!=====
3.00	13	!=============
4.00	2	!==
5.00	28	!============================

255

```
----------------- FREQUENCY DISTRIBUTIONS -----------------

HEADER DATA FOR: B:THESIS     LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75


    VARIABLE: 47. Q51

                                              ....CUMULATIVE...
    ===== VALUE =====    FREQUENCY    PERCENT   FREQUENCY  PERCENT
         1.00                55        70.51       55       70.51
         2.00                12        15.38       67       85.90
         3.00                 9        11.54       76       97.44
         4.00                 0          .00       76       97.44
         5.00                 2         2.56       78      100.00
                     TOTAL   78       100.00

11 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


    ===== VALUE =====    FREQUENCY ...............................
         1.00                55 |==============================
         2.00                12 |======
         3.00                 9 |====
         4.00                 0 |
         5.00                 2 |=
```

----------------- FREQUENCY DISTRIBUTIONS -----------------

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    VARIABLE: 48. Q52

                                              ....CUMULATIVE...
    ===== VALUE =====    FREQUENCY    PERCENT   FREQUENCY  PERCENT
         1.00                21        28.00       21       28.00
         2.00                 7         9.33       28       37.33
         3.00                21        28.00       49       65.33
         4.00                12        16.00       61       81.33
         5.00                14        18.67       75      100.00
                     TOTAL   75       100.00

14 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


    ===== VALUE =====    FREQUENCY ...............................
         1.00                21 |=============================
         2.00                 7 |=========
         3.00                21 |==============================
         4.00                12 |================
         5.00                14 |==================
```

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 49. Q53

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	19	22.62	19	22.62
2.00	20	23.81	39	46.43
3.00	34	40.48	73	86.90
4.00	5	5.95	78	92.86
5.00	6	7.14	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	19	|===================
2.00	20	|===================
3.00	34	|================================
4.00	5	|====
5.00	6	|=====

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 50. Q54

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	46	55.42	46	55.42
2.00	20	24.10	66	79.52
3.00	6	7.23	72	86.75
4.00	6	7.23	78	93.98
5.00	5	6.02	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	46	|===============================
2.00	20	|=============
3.00	6	|===
4.00	6	|===
5.00	5	|===

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 51. Q55

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	45	54.88	45	54.88
2.00	11	13.41	56	68.29
3.00	10	12.20	66	80.49
4.00	5	6.10	71	86.59
5.00	11	13.41	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	45	=============================
2.00	11	=======
3.00	10	======
4.00	5	===
5.00	11	=======

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 52. Q56

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	27	32.93	27	32.93
2.00	13	15.85	40	48.78
3.00	11	13.41	51	62.20
4.00	15	18.29	66	80.49
5.00	16	19.51	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	27	=============================
2.00	13	=============
3.00	11	==========
4.00	15	===============
5.00	16	================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 53. Q57

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	6	7.32	6	7.32
2.00	8	9.76	14	17.07
3.00	9	10.98	23	28.05
4.00	7	8.54	30	36.59
5.00	52	63.41	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	6	═══
2.00	8	════
3.00	9	═════
4.00	7	═══
5.00	52	═══════════════════════════

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 54. Q60

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	36	42.86	36	42.86
2.00	13	15.48	49	58.33
3.00	9	10.71	58	69.05
4.00	6	7.14	64	76.19
5.00	20	23.81	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	36	══════════════════════════
2.00	13	══════════
3.00	9	══════
4.00	6	════
5.00	20	═══════════════

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 55. Q61

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	28	33.33	28	33.33
2.00	14	16.67	42	50.00
3.00	13	15.48	55	65.48
4.00	10	11.90	65	77.38
5.00	19	22.62	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	28	===========================
2.00	14	=============
3.00	13	============
4.00	10	=========
5.00	19	==================

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 56. Q62

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	25	29.76	25	29.76
2.00	15	17.86	40	47.62
3.00	6	7.14	46	54.76
4.00	18	21.43	64	76.19
5.00	20	23.81	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	25	========================
2.00	15	==============
3.00	6	======
4.00	18	==================
5.00	20	====================

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HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 57. Q63

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	10	11.90	10	11.90
2.00	12	14.29	22	26.19
3.00	19	22.62	41	48.81
4.00	9	10.71	50	59.52
5.00	34	40.48	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	10	========
2.00	12	==========
3.00	19	================
4.00	9	=======
5.00	34	=============================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 58. Q64

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	19	23.17	19	23.17
2.00	6	7.32	25	30.49
3.00	18	21.95	43	52.44
4.00	3	3.66	46	56.10
5.00	36	43.90	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	19	===============
2.00	6	====
3.00	18	==============
4.00	3	==
5.00	36	===============================

```
------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS    LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75


     VARIABLE: 59. Q65


                                            ....CUMULATIVE...
     ===== VALUE =====    FREQUENCY   PERCENT   FREQUENCY PERCENT
          1.00                26        32.10        26      32.10
          2.00                21        25.93        47      58.02
          3.00                11        13.58        58      71.60
          4.00                 3         3.70        61      75.31
          5.00                20        24.69        81     100.00
                       TOTAL   81       100.00

8 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


     ===== VALUE =====    FREQUENCY ..............................
          1.00                26  |============================
          2.00                21  |=====================
          3.00                11  |===========
      .   4.00                 3  |===
       '  5.00                20  |====================


                            . . ---


------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:CIV-MIL    LABEL: SURVEY DATA
NUMBER OF CASES: 67   NUMBER OF VARIABLES: 75


     VARIABLE: 61. Q67


                       Q67. Civilian

                                            ....CUMULATIVE...
     ===== VALUE =====    FREQUENCY   PERCENT   FREQUENCY PERCENT
          1.00                49        74.24        49      74.24
          2.00                 1         1.52        50      75.76
          3.00                 9        13.64        59      89.39
          4.00                 1         1.52        60      90.91
          5.00                 1         1.52        61      92.42
          6.00                 5         7.58        66     100.00
                       TOTAL   66       100.00

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


     ===== VALUE =====    FREQUENCY ..............................
          1.00                49  |===============================
          2.00                 1  |
          3.00                 9  |=====
          4.00                 1  |
          5.00                 1  |
          6.00                 5  |==

                            262
```

————————————————— FREQUENCY DISTRIBUTIONS —————————————————

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 83   NUMBER OF VARIABLES: 6

VARIABLE: 1. Q66

VALUE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	PERCENT
1.00	13	15.85	13	15.85
2.00	0	.00	13	15.85
3.00	29	35.37	42	51.22
4.00	17	20.73	59	71.95
5.00	8	9.76	67	81.71
6.00	15	18.29	82	100.00
TOTAL	82	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

VALUE	FREQUENCY	
1.00	13	=============
2.00	0	
3.00	29	============================
4.00	17	================
5.00	8	=======
6.00	15	===============

————————————————— FREQUENCY DISTRIBUTIONS —————————————————

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 83   NUMBER OF VARIABLES: 6

VARIABLE: 2. Q67

VALUE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	PERCENT
1.00	50	72.46	50	72.46
2.00	1	1.45	51	73.91
3.00	8	11.59	59	85.51
4.00	1	1.45	60	86.96
5.00	1	1.45	61	88.41
6.00	8	11.59	69	100.00
TOTAL	69	100.00		

CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

VALUE	FREQUENCY	
1.00	50	===============================
2.00	1	
3.00	8	===
4.00	1	
5.00	1	
6.00	8	====

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HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 65   NUMBER OF VARIABLES: 6

VARIABLE: 1. Q66

Civilian

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	13	20.31	13	20.31
2.00	0	.00	13	20.31
3.00	24	37.50	37	57.81
4.00	14	21.88	51	79.69
5.00	8	12.50	59	92.19
6.00	5	7.81	64	100.00
TOTAL	64	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	13	|==============
2.00	0	|
3.00	24	|==========================
4.00	14	|===============
5.00	8	|=========
6.00	5	|======

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 6

VARIABLE: 1. Q66

Military

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	0	.00	0	.00
2.00	0	.00	0	.00
3.00	5	27.78	5	27.78
4.00	3	16.67	8	44.44
5.00	0	.00	8	44.44
6.00	10	55.56	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	|
2.00	0	|
3.00	5	|============
4.00	3	|=======
5.00	0	|
6.00	10	|==========================

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 50   NUMBER OF VARIABLES: 75

VARIABLE: 60. Q66

Q66. Female

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	10	22.73	10	22.73
2.00	0	.00	10	22.73
3.00	20	45.45	30	68.18
4.00	7	15.91	37	84.09
5.00	5	11.36	42	95.45
6.00	2	4.55	44	100.00
TOTAL	44	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	10	|=============
2.00	0	|
3.00	20	|===============================
4.00	7	|=========
5.00	5	|=======
6.00	2	|==

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 39   NUMBER OF VARIABLES: 75

VARIABLE: 60. Q66

Q66. Male

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	5	12.82	5	12.82
2.00	0	.00	5	12.82
3.00	8	20.51	13	33.33
4.00	8	20.51	21	53.85
5.00	3	7.69	24	61.54
6.00	15	38.46	39	100.00
TOTAL	39	100.00		

===== VALUE =====	FREQUENCY	....
1.00	5	|=========
2.00	0	|
3.00	8	|================
4.00	8	|================
5.00	3	|=====
6.00	15	|==============================

```
----------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:CIV-MIL    LABEL: female
NUMBER OF CASES: 39    NUMBER OF VARIABLES: 75


     VARIABLE: 60. Q66

                 Q66. Civilian - Female

                                            ....CUMULATIVE...
     ===== VALUE =====    FREQUENCY    PERCENT    FREQUENCY  PERCENT
              1.00              8        21.05         8       21.05
              2.00              0          .00         8       21.05
              3.00             17        44.74        25       65.79
              4.00              7        18.42        32       84.21
              5.00              5        13.16        37       97.37
              6.00              1         2.63        38      100.00
                      TOTAL    38       100.00

 1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS


     ===== VALUE =====    FREQUENCY ..............................
              1.00              8 |=============
              2.00              0 |
              3.00             17 |===========================
              4.00              7 |===========
              5.00              5 |========
              6.00              1 |=
```

```
----------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:CIV-MIL    LABEL: female
NUMBER OF CASES: 25    NUMBER OF VARIABLES: 75


     VARIABLE: 60. Q66

                 Q66. Civilian - Male

                                            ....CUMULATIVE...
     ===== VALUE =====    FREQUENCY    PERCENT    FREQUENCY  PERCENT
              1.00              5        20.00         5       20.00
              2.00              0          .00         5       20.00
              3.00              7        28.00        12       48.00
              4.00              6        24.00        18       72.00
              5.00              3        12.00        21       84.00
              6.00              4        16.00        25      100.00
                      TOTAL    25       100.00


     ===== VALUE =====    FREQUENCY ..............................
              1.00              5 |==================
              2.00              0 |
              3.00              7 |=========================
              4.00              6 |======================
              5.00              3 |==========
              6.00              4 |==============
```

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 61. Q67

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	63	76.83	63	76.83
2.00	1	1.22	64	78.05
3.00	9	10.98	73	89.02
4.00	1	1.22	74	90.24
5.00	1	1.22	75	91.46
6.00	7	8.54	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	63	|================================
2.00	1	|
3.00	9	|====
4.00	1	|
5.00	1	|
6.00	7	|===

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 62. Q68

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	6	7.14	6	7.14
2.00	2	2.38	8	9.52
3.00	4	4.76	12	14.29
4.00	5	5.95	17	20.24
5.00	67	79.76	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	6	|==
2.00	2	|
3.00	4	|=
4.00	5	|==
5.00	67	|============================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 65   NUMBER OF VARIABLES: 6

VARIABLE: 2. Q67

Civilian

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	35	68.63	35	68.63
2.00	1	1.96	36	70.59
3.00	7	13.73	43	84.31
4.00	1	1.96	44	86.27
5.00	1	1.96	45	88.24
6.00	6	11.76	51	100.00
TOTAL	51	100.00		

14 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	35	===============================
2.00	1	
3.00	7	=====
4.00	1	
5.00	1	_
6.00	6	====

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 6

VARIABLE: 2. Q67

Military

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	15	83.33	15	83.33
2.00	0	.00	15	83.33
3.00	1	5.56	16	88.89
4.00	0	.00	16	88.89
5.00	0	.00	16	88.89
6.00	2	11.11	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	15	===============================
2.00	0	
3.00	1	=
4.00	0	
5.00	0	
6.00	2	===

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------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 63. Q69

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	36	42.35	36	42.35
2.00	3	3.53	39	45.88
3.00	7	8.24	46	54.12
4.00	4	4.71	50	58.82
5.00	16	18.82	66	77.65
6.00	19	22.35	85	100.00
TOTAL	85	100.00		

4 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	36	!================================
2.00	3	!==
3.00	7	!=====
4.00	4	!===
5.00	16	!=============
6.00	19	!===============

------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 64. Q70

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	1	1.20	1	1.20
2.00	6	7.23	7	8.43
3.00	7	8.43	14	16.87
4.00	22	26.51	36	43.37
5.00	27	32.53	63	75.90
6.00	20	24.10	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	1	!=
2.00	6	!======
3.00	7	!=======
4.00	22	!=====================
5.00	27	!==========================
6.00	20	!====================

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 65. Q71

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	47	57.32	47	57.32
2.00	1	1.22	48	58.54
3.00	6	7.32	54	65.85
4.00	6	7.32	60	73.17
5.00	22	26.83	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	47	|==============================
2.00	1	|
3.00	6	|===
4.00	6	|===
5.00	22	|=============

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 66. Q72

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	17	20.48	17	20.48
2.00	40	48.19	57	68.67
3.00	14	16.87	71	85.54
4.00	6	7.23	77	92.77
5.00	5	6.02	82	98.80
6.00	1	1.20	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	17	|============
2.00	40	|============================
3.00	14	|==========
4.00	6	|====
5.00	5	|===
6.00	1	|

-------------------- FREQUENCY DISTRIBUTIONS ----------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 83   NUMBER OF VARIABLES: 6

VARIABLE: 3. Q72

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	18	21.95	18	21.95
2.00	40	48.78	58	70.73
3.00	12	14.63	70	85.37
4.00	6	7.32	76	92.68
5.00	5	6.10	81	98.78
6.00	1	1.22	82	100.00
TOTAL	82	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	18	=============
2.00	40	=============================
3.00	12	========
4.00	6	====
5.00	5	===
6.00	1	

-------------------- FREQUENCY DISTRIBUTIONS ----------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 83   NUMBER OF VARIABLES: 6

VARIABLE: 4. Q73

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	10	12.20	10	12.20
3.00	17	20.73	27	32.93
4.00	21	25.61	48	58.54
5.00	12	14.63	60	73.17
6.00	10	12.20	70	85.37
7.00	8	9.76	78	95.12
8.00	4	4.88	82	100.00
TOTAL	82	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

VALUE	FREQUENCY	....
1.00	0	
2.00	10	==========
3.00	17	=================
4.00	21	=====================
5.00	12	============
6.00	10	==========
7.00	8	========
8.00	4	=====

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 65   NUMBER OF VARIABLES: 6

VARIABLE: 3. Q72

Civilian

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	12	18.75	12	18.75
2.00	31	42.44	43	67.19
3.00	7	14.06	50	81.25
4.00	6	9.38	58	90.63
5.00	5	7.81	63	98.44
6.00	1	1.56	64	100.00
	TOTAL 64	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	
1.00	12	==========
2.00	31	=======================
3.00	7	=======
4.00	6	=====
5.00	5	====
6.00	1	

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 6

VARIABLE: 3. Q72

Military

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	6	33.33	6	33.33
2.00	4	50.00	10	83.33
3.00	3	16.67	18	100.00
4.00			17	100.00
5.00			15	100.00
6.00			1	100.00

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 65   NUMBER OF VARIABLES: 6

VARIABLE: 4. Q73

Civilian

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	8	12.50	8	12.50
3.00	12	18.75	20	31.25
4.00	14	21.88	34	53.13
5.00	11	17.19	45	70.31
6.00	8	12.50	53	82.81
7.00	8	12.50	61	95.31
8.00	3	4.69	64	100.00
TOTAL	64	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	0	|
2.00	8	|=================
3.00	12	|=========================
4.00	14	|===============================
5.00	11	|=======================
6.00	8	|=================
7.00	8	|=================
8.00	3	|======

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 6

VARIABLE: 4. Q73

Military

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	2	11.11	2	11.11
3.00	5	27.78	7	38.89
4.00	7	38.89	14	77.78
5.00	1	5.56	15	83.33
6.00	2	11.11	17	94.44
7.00	0	.00	17	94.44
8.00	1	5.56	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	|
2.00	2	|=======
3.00	5	|===================
4.00	7	|=============================
5.00	1	|====
6.00	2	|=======
7.00	0	|
8.00	1	|====

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 67. Q73

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	9	10.98	9	10.98
3.00	20	24.39	29	35.37
4.00	20	24.39	49	59.76
5.00	12	14.63	61	74.39
6.00	9	10.98	70	85.37
7.00	8	9.76	78	95.12
8.00	4	4.88	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	0	|
2.00	9	|=============
3.00	20	|============================
4.00	20	|============================
5.00	12	|=================
6.00	9	|=============
7.00	8	|===========
8.00	4	|=====

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 68. Q74

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	43	52.44	43	52.44
2.00	38	46.34	81	98.78
3.00	0	.00	81	98.78
4.00	1	1.22	82	100.00
5.00	0	.00	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	43	|===============================
2.00	38	|==========================
3.00	0	|
4.00	1	|
5.00	0	|

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 69. Q75

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	56	67.47	56	67.47
2.00	3	3.61	59	71.08
3.00	0	.00	59	71.08
4.00	24	28.92	83	100.00
5.00	0	.00	83	100.00
TOTAL	83	100.00		

6 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	56	===================================
2.00	3	=
3.00	0	
4.00	24	=============
5.00	0	

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 70. Q76

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	9	11.84	9	11.84
2.00	3	3.95	12	15.79
3.00	32	42.11	44	57.89
4.00	8	10.53	52	68.42
5.00	18	23.68	70	92.11
6.00	5	6.58	75	98.68
7.00	1	1.32	76	100.00
TOTAL	76	100.00		

13 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	9	========
2.00	3	==
3.00	32	===========================
4.00	8	=======
5.00	18	================
6.00	5	====
7.00	1	

------------------ FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: SURVEY DATA
NUMBER OF CASES: 39   NUMBER OF VARIABLES: 75

VARIABLE: 71. Q77

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	49	61.25	49	61.25
2.00	3	3.75	52	65.00
3.00	11	13.75	63	78.75
4.00	14	17.50	77	96.25
5.00	1	1.25	78	97.50
6.00	2	2.50	80	100.00
TOTAL	80	100.00		

9 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	49	!=================================
2.00	3	!=
3.00	11	!=====
4.00	14	!=======
5.00	1	!
6.00	2	!=

------------------ FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:CIV-MIL   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

VARIABLE: 72. Q78

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	3	3.70	3	3.70
2.00	11	13.58	14	17.28
3.00	23	28.40	37	45.68
4.00	23	28.40	60	74.07
5.00	14	17.28	74	91.36
6.00	7	8.64	81	100.00
TOTAL	81	100.00		

8 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	3	!===
2.00	11	!============
3.00	23	!=========================
4.00	23	!=========================
5.00	14	!===============
6.00	7	!=======

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 83   NUMBER OF VARIABLES: 6

VARIABLE: 5. Q78

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	8	9.76	8	9.76
2.00	8	9.76	16	19.51
3.00	22	26.83	38	46.34
4.00	23	28.05	61	74.39
5.00	13	15.85	74	90.24
6.00	8	9.76	82	100.00
TOTAL	82	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	8	===========
2.00	8	===========
3.00	22	===============================
4.00	23	===============================
5.00	13	================
6.00	8	===========

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 83   NUMBER OF VARIABLES: 6

VARIABLE: 6. Q79

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	63	76.83	63	76.83
2.00	18	21.95	81	98.78
3.00	1	1.22	82	100.00
4.00	0	.00	82	100.00
5.00	0	.00	82	100.00
6.00	0	.00	82	100.00
TOTAL	82	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	63	==============================
2.00	18	=========
3.00	1	
4.00	0	
5.00	0	
6.00	0	

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 65   NUMBER OF VARIABLES: 6

VARIABLE: 5. Q78

Civilian

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	6	9.38	6	9.38
2.00	6	9.38	12	18.75
3.00	14	21.88	26	40.63
4.00	21	32.81	47	73.44
5.00	11	17.19	58	90.63
6.00	6	9.38	64	100.00
	TOTAL 64	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY ....
1.00	6 |=======
2.00	6 |=======
3.00	14 |=================
4.00	21 |=========================
5.00	11 |=============
6.00	6 |=======

------------------ FREQUENCY DISTRIBUTIONS ------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 6

VARIABLE: 5. Q78

Military

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	2	11.11	2	11.11
2.00	2	11.11	4	22.22
3.00	8	44.44	12	66.67
4.00	2	11.11	14	77.78
5.00	2	11.11	16	88.89
6.00	2	11.11	18	100.00
	TOTAL	100.00		

===== VALUE =====	FREQUENCY ....
1.00	2 |======
2.00	2 |======
3.00	8 |=========================
4.00	2 |======
5.00	2 |======
6.00	2 |======

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 73. Q79

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	64	78.05	64	78.05
2.00	14	17.07	78	95.12
3.00	1	1.22	79	96.34
4.00	3	3.66	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	64	|=============================
2.00	14	|======
3.00	1	|
4.00	3	|=

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 74. Q80

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	15	17.86	15	17.86
2.00	0	.00	15	17.86
3.00	29	34.52	44	52.38
4.00	3	3.57	47	55.95
5.00	14	16.67	61	72.62
6.00	23	27.38	84	100.00
TOTAL	84	100.00		

5 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	15	|================
2.00	0	|
3.00	29	|==============================
4.00	3	|===
5.00	14	|===============
6.00	23	|======================

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------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 65   NUMBER OF VARIABLES: 6

VARIABLE: 6. Q79

Civilian

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE...	
			FREQUENCY	PERCENT
1.00	47	73.44	47	73.44
2.00	16	25.00	63	98.44
3.00	1	1.56	64	100.00
4.00	0	.00	64	100.00
TOTAL	64	100.00		

1 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	47	|=======================================
2.00	16	|========
3.00	1	|
4.00	0	|

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESISA   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 6

VARIABLE: 6. Q79

Military

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE...	
			FREQUENCY	PERCENT
1.00	16	88.89	16	88.89
2.00	2	11.11	18	100.00
3.00	0	.00	18	100.00
4.00	0	.00	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00		
2.00		
3.00		
4.00		

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:THESIS   LABEL: SURVEY DATA
NUMBER OF CASES: 89   NUMBER OF VARIABLES: 75

    VARIABLE: 75. Q81

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	27	32.93	27	32.93
2.00	27	32.93	54	65.85
3.00	10	12.20	64	78.05
4.00	11	13.41	75	91.46
5.00	7	8.54	82	100.00
TOTAL	82	100.00		

7 CASES WERE OUTSIDE SPECIFIED CLASS LIMITS

===== VALUE =====	FREQUENCY	....
1.00	27	|===============================
2.00	27	|===============================
3.00	10	|==========
4.00	11	|===========
5.00	7	|=======

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 78   NUMBER OF VARIABLES: 9

VARIABLE: 1. Q58-1

Civilian - Promotions

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	21	35.00	21	35.00
2.00	9	15.00	30	50.00
3.00	5	8.33	35	58.33
4.00	6	10.00	41	68.33
5.00	8	13.33	49	81.67
6.00	2	3.33	51	85.00
7.00	3	5.00	54	90.00
8.00	4	6.67	58	96.67
9.00	2	3.33	60	100.00
TOTAL	60	100.00		

```
===== VALUE =====    FREQUENCY ..............................
      1.00              21  |===============================
      2.00               9  |============
      3.00               5  |======
      4.00               6  |========
      5.00               8  |==========
      6.00               2  |==
      7.00               3  |====
      8.00               4  |=====
      9.00               2  |==
```

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 1. Q58-1

Military - Promotions

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	7	38.89	7	38.89
2.00	3	16.67	10	55.56
3.00	0	.00	10	55.56
4.00	2	11.11	12	66.67
5.00	1	5.56	13	72.22
6.00	2	11.11	15	83.33
7.00	0	.00	15	83.33
8.00	3	16.67	18	100.00
9.00	0	.00	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	7	|==============================
2.00	3	|============
3.00	0	|
4.00	2	|========
5.00	1	|====
6.00	2	|========
7.00	0	|
8.00	3	|============
9.00	0	|

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

VARIABLE: 2. Q58-2

Civilian - Pay Increases

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	9	15.00	9	15.00
2.00	13	21.67	22	36.67
3.00	9	15.00	31	51.67
4.00	5	8.33	36	60.00
5.00	8	13.33	44	73.33
6.00	7	11.67	51	85.00
7.00	4	6.67	55	91.67
8.00	3	5.00	58	96.67
9.00	2	3.33	60	100.00
TOTAL	60	100.00		

===== VALUE =====	FREQUENCY	....
1.00	9	===================
2.00	13	=============================
3.00	9	===================
4.00	5	===========
5.00	8	=================
6.00	7	===============
7.00	4	========
8.00	3	======
9.00	2	====

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------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 2. Q58-2

Military - Pay Increases

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	3	16.67	3	16.67
2.00	4	22.22	7	38.89
3.00	1	5.56	8	44.44
4.00	2	11.11	10	55.56
5.00	2	11.11	12	66.67
6.00	0	.00	12	66.67
7.00	2	11.11	14	77.78
8.00	2	11.11	16	88.89
9.00	2	11.11	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	3	|=====================
2.00	4	|==============================
3.00	1	|=======
4.00	2	|==============
5.00	2	|==============
6.00	0	|
7.00	2	|==============
8.00	2	|==============
9.00	2	|==============

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:PANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

VARIABLE: 3. Q58-3

Civilian - Ability To Work Independently

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	11	18.33	11	18.33
2.00	11	18.33	22	36.67
3.00	6	10.00	28	46.67
4.00	7	11.67	35	58.33
5.00	3	5.00	38	63.33
6.00	7	11.67	45	75.00
7.00	5	8.33	50	83.33
8.00	5	8.33	55	91.67
9.00	5	8.33	60	100.00
TOTAL	60	100.00		

===== VALUE =====	FREQUENCY	....
1.00	11	!================================
2.00	11	!================================
3.00	6	!=================
4.00	7	!====================
5.00	3	!========
6.00	7	!====================
7.00	5	!==============
8.00	5	!==============
9.00	5	!==============

286

MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 3. Q58-3

Military - Ability To Work Independently

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	4	22.22	4	22.22
2.00	1	5.56	5	27.78
3.00	5	27.78	10	55.56
4.00	2	11.11	12	66.67
5.00	5	27.78	17	94.44
6.00	0	.00	17	94.44
7.00	0	.00	17	94.44
8.00	1	5.56	18	100.00
9.00	0	.00	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	4	|===========================
2.00	1	|=====
3.00	5	|=================================
4.00	2	|============
5.00	5	|=================================
6.00	0	|
7.00	0	|
8.00	1	|=====
9.00	0	|

287

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

        VARIABLE: 4. Q58-4

            Civilian - Good Working Conditions

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	7	11.67	7	11.67
2.00	8	13.33	15	25.00
3.00	5	8.33	20	33.33
4.00	8	13.33	28	46.67
5.00	5	8.33	33	55.00
6.00	6	10.00	39	65.00
7.00	10	16.67	49	81.67
8.00	5	8.33	54	90.00
9.00	6	10.00	60	100.00
TOTAL	60	100.00		

===== VALUE =====	FREQUENCY	....
1.00	7	=======================
2.00	8	===========================
3.00	5	================
4.00	8	===========================
5.00	5	================
6.00	6	=================
7.00	10	================================
8.00	5	================
9.00	6	=================

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 4. Q58-4

Military - Good Working Conditions

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	1	5.56	1	5.56
2.00	3	16.67	4	22.22
3.00	1	5.56	5	27.78
4.00	6	33.33	11	61.11
5.00	3	16.67	14	77.78
6.00	2	11.11	16	88.89
7.00	1	5.56	17	94.44
8.00	0	.00	17	94.44
9.00	1	5.56	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	1	|====
2.00	3	|================
3.00	1	|====
4.00	6	|================================
5.00	3	|================
6.00	2	|==========
7.00	1	|====
8.00	0	|
9.00	1	|====

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

VARIABLE: 5. Q58-5

Civilian - Training Opportunities

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	1	1.67	1	1.67
2.00	4	6.67	5	8.33
3.00	10	16.67	15	25.00
4.00	7	11.67	22	36.67
5.00	11	18.33	33	55.00
6.00	8	13.33	41	68.33
7.00	6	10.00	47	78.33
8.00	7	11.67	54	90.00
9.00	6	10.00	60	100.00
TOTAL	60	100.00		

===== VALUE =====	FREQUENCY	....
1.00	1	|==
2.00	4	|===========
3.00	10	|============================
4.00	7	|====================
5.00	11	|===============================
6.00	8	|======================
7.00	6	|================
8.00	7	|====================
9.00	6	|================

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HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 5. Q58-5

Military - Training Opportunities

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	0	.00	0	.00
3.00	2	11.11	2	11.11
4.00	4	22.22	6	33.33
5.00	3	16.67	9	50.00
6.00	4	22.22	13	72.22
7.00	2	11.11	15	83.33
8.00	2	11.11	17	94.44
9.00	1	5.56	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	¦
2.00	0	¦
3.00	2	¦==============
4.00	4	¦=============================
5.00	3	¦=====================
6.00	4	¦=============================
7.00	2	¦==============
8.00	2	¦==============
9.00	1	¦=======

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

VARIABLE: 6. Q58-6

Civilian - Formal Recognition

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	2	3.33	2	3.33
2.00	3	5.00	5	8.33
3.00	7	11.67	12	20.00
4.00	8	13.33	20	33.33
5.00	10	16.67	30	50.00
6.00	13	21.67	43	71.67
7.00	4	6.67	47	78.33
8.00	5	8.33	52	86.67
9.00	8	13.33	60	100.00
TOTAL	60	100.00		

===== VALUE =====	FREQUENCY	....
1.00	2	====
2.00	3	======
3.00	7	==============
4.00	8	================
5.00	10	====================
6.00	13	==========================
7.00	4	========
8.00	5	==========
9.00	8	================

HEADER DATA FOR: 8:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 6. Q58-6

Military - Formal Recognition

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	3	16.67	3	16.67
2.00	0	.00	3	16.67
3.00	2	11.11	5	27.78
4.00	2	11.11	7	38.89
5.00	0	.00	7	38.89
6.00	2	11.11	9	50.00
7.00	2	11.11	11	61.11
8.00	4	22.22	15	83.33
9.00	3	16.67	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	3	|=======================
2.00	0	|
3.00	2	|===============
4.00	2	|===============
5.00	0	|
6.00	2	|===============
7.00	2	|===============
8.00	4	|==============================
9.00	3	|=======================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

    VARIABLE: 7. Q58-7

                    Civilian - Cash Awards

                                          ....CUMULATIVE...
===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
        1.00   2   3.33   2   3.33
        2.00   2   3.33   4   6.67
        3.00   8   13.33   12   20.00
        4.00   7   11.67   19   31.67
        5.00   4   6.67   23   38.33
        6.00   6   10.00   29   48.33
        7.00   10   16.67   39   65.00
        8.00   12   20.00   51   85.00
        9.00   9   15.00   60   100.00
               TOTAL   60   100.00

===== VALUE =====   FREQUENCY ....
        1.00   2 |====
        2.00   2 |====
        3.00   8 |==================
        4.00   7 |================
        5.00   4 |=========
        6.00   6 |=============
        7.00   10 |=======================
        8.00   12 |============================
        9.00   9 |=====================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

    VARIABLE: 7. Q58-7

                Military - Cash Awards

                                         ....CUMULATIVE...
===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
        1.00   0   .00   0   .00
        2.00   0   .00   0   .00
        3.00   2   11.11   2   11.11
        4.00   0   .00   2   11.11
        5.00   1   5.56   3   16.67
        6.00   2   11.11   5   27.78
        7.00   6   33.33   11   61.11
        8.00   3   16.67   14   77.78
        9.00   4   22.22   18   100.00
                TOTAL   18   100.00

===== VALUE =====   FREQUENCY ....
        1.00   0 !
        2.00   0 !
        3.00   2 !=========
        4.00   0 !
        5.00   1 !====
        6.00   2.!=========
        7.00   6 !==============================
        8.00   3 !===============
        9.00   4 !====================

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HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

VARIABLE: 8. Q58-8

Civilian - Verbal Recognition

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	2	3.33	2	3.33
2.00	5	8.33	7	11.67
3.00	6	10.00	13	21.67
4.00	6	10.00	19	31.67
5.00	10	16.67	29	48.33
6.00	6	10.00	35	58.33
7.00	8	13.33	43	71.67
8.00	11	18.33	54	90.00
9.00	6	10.00	60	100.00
TOTAL	60	100.00		

===== VALUE =====	FREQUENCY	....
1.00	2	╎=====
2.00	5	╎=============
3.00	6	╎===============
4.00	6	╎===============
5.00	10	╎=========================
6.00	6	╎===============
7.00	8	╎====================
8.00	11	╎===========================
9.00	6	╎===============

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 8. Q58-8

Military - Verbal Recognition

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	3	16.67	3	16.67
3.00	1	5.56	4	22.22
4.00	0	.00	4	22.22
5.00	2	11.11	6	33.33
6.00	5	27.78	11	61.11
7.00	3	16.67	14	77.78
8.00	2	11.11	16	88.89
9.00	2	11.11	18	100.00
TOTAL	18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	¦
2.00	3	¦===============
3.00	1	¦=====
4.00	0	¦
5.00	2	¦==========
6.00	5	¦===========================
7.00	3	¦===============
8.00	2	¦==========
9.00	2	¦==========

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 60   NUMBER OF VARIABLES: 9

    VARIABLE: 9. Q58-9

        Civilian - "Choice" Job Assignments

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	5	8.33	5	8.33
2.00	5	8.33	10	16.67
3.00	4	6.67	14	23.33
4.00	6	10.00	20	33.33
5.00	1	1.67	21	35.00
6.00	5	8.33	26	43.33
7.00	10	16.67	36	60.00
8.00	8	13.33	44	73.33
9.00	16	26.67	60	100.00
TOTAL	60	100.00		

===== VALUE =====   FREQUENCY ....
        1.00   5 |=========
        2.00   5 |=========
        3.00   4 |=======
        4.00   6 |==========
        5.00   1 |=
        6.00   5 |=========
        7.00   10 |==================
        8.00   8 |==============
        9.00   16 |================================

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING1   LABEL: SURVEY DATA
NUMBER OF CASES: 18   NUMBER OF VARIABLES: 9

VARIABLE: 9. Q58-9

Military - "Choice" Job Assignments

			....CUMULATIVE...	
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	4	22.22	4	22.22
3.00	4	22.22	8	44.44
4.00	0	.00	8	44.44
5.00	1	5.56	9	50.00
6.00	1	5.56	10	55.56
7.00	2	11.11	12	66.67
8.00	1	5.56	13	72.22
9.00	5	27.78	18	100.00
	TOTAL 18	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	!
2.00	4	!=========================
3.00	4	!=========================
4.00	0	!
5.00	1	!=====
6.00	1	!=====
7.00	2	!==========
8.00	1	!=====
9.00	5	!==============================

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 1. Q59-1

Civilian - Pay And Benefits

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	23	37.70	23	37.70
2.00	8	13.11	31	50.82
3.00	10	16.39	41	67.21
4.00	3	4.92	44	72.13
5.00	3	4.92	47	77.05
6.00	4	6.56	51	83.61
7.00	5	8.20	56	91.80
8.00	1	1.64	57	93.44
9.00	4	6.56	61	100.00
TOTAL	61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	23	!===================================
2.00	8	!==========
3.00	10	!============
4.00	3	!===
5.00	3	!===
6.00	4	!=====
7.00	5	!======
8.00	1	!=
9.00	4	!=====

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HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 1. Q59-1

Military - Pay And Benefits

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	3	17.65	3	17.65
2.00	0	.00	3	17.65
3.00	3	17.65	6	35.29
4.00	1	5.88	7	41.18
5.00	2	11.76	9	52.94
6.00	3	17.65	12	70.59
7.00	3	17.65	15	88.24
8.00	0	.00	15	88.24
9.00	2	11.76	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	3	|================================
2.00	0	|
3.00	3	|================================
4.00	1	|=========
5.00	2	|====================
6.00	3	|================================
7.00	3	|================================
8.00	0	|
9.00	2	|====================

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 2. Q59-2

Civilian - Challenge Of The Job

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY PERCENT	
1.00	16	26.23	16	26.23
2.00	13	21.31	29	47.54
3.00	9	14.75	38	62.30
4.00	7	11.48	45	73.77
5.00	7	11.48	52	85.25
6.00	1	1.64	53	86.89
7.00	1	1.64	54	88.52
8.00	3	4.92	57	93.44
9.00	4	6.56	61	100.00
	TOTAL • 61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	16	!============================
2.00	13	!======================
3.00	9	!===============
4.00	7	!============
5.00	7	!============
6.00	1	!=
7.00	1	!=
8.00	3	!=====
9.00	4	!=======

-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 2. Q59-2

Military - Challenge Of The Job

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	11	64.71	11	64.71
2.00	0	.00	11	64.71
3.00	4	23.53	15	88.24
4.00	0	.00	15	88.24
5.00	0	.00	15	88.24
6.00	1	5.88	16	94.12
7.00	1	5.88	17	100.00
8.00	0	.00	17	100.00
9.00	0	.00	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	11	|================================
2.00	0	|
3.00	4	|==========
4.00	0	|
5.00	0	|
6.00	1	|==
7.00	1	|==
8.00	0	|
9.00	0	|

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 3. Q59-3

Civilian - Service To My Country

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	4	6.56	4	6.56
2.00	7	11.48	11	18.03
3.00	3	4.92	14	22.95
4.00	5	8.20	19	31.15
5.00	9	14.75	28	45.90
6.00	9	14.75	37	60.66
7.00	8	13.11	45	73.77
8.00	7	11.48	52	85.25
9.00	9	14.75	61	100.00
TOTAL	61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	4	|============
2.00	7	|=====================
3.00	3	|=========
4.00	5	|===============
5.00	9	|===========================
6.00	9	|===========================
7.00	8	|========================
8.00	7	|=====================
9.00	9	|===========================

304

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 3. Q59-3

Military - Service To My Country

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	2	11.76	2	11.76
2.00	5	29.41	7	41.18
3.00	2	11.76	9	52.94
4.00	4	23.53	13	76.47
5.00	0	.00	13	76.47
6.00	1	5.88	14	82.35
7.00	2	11.76	16	94.12
8.00	1	5.88	17	100.00
9.00	0	.00	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	2	===========
2.00	5	=============================
3.00	2	===========
4.00	4	=======================
5.00	0	
6.00	1	=====
7.00	2	===========
8.00	1	=====
9.00	0	

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 4. Q59-4

Civilian - Getting the "Best" for the U.S.

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	5	8.20	5	8.20
2.00	6	9.84	11	18.03
3.00	8	13.11	19	31.15
4.00	7	11.48	26	42.62
5.00	9	14.75	35	57.38
6.00	5	8.20	40	65.57
7.00	7	11.48	47	77.05
8.00	10	16.39	57	93.44
9.00	4	6.56	61	100.00
TOTAL	61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	5	|================
2.00	6	|==================
3.00	8	|=========================
4.00	7	|=====================
5.00	9	|=============================
6.00	5	|===============
7.00	7	|=====================
8.00	10	|===============================
9.00	4	|===========

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----------------- FREQUENCY DISTRIBUTIONS -----------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 4. Q59-4

Military - Getting the "Best" for the U.S.

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	1	5.88	1	5.88
2.00	2	11.76	3	17.65
3.00	2	11.76	5	29.41
4.00	4	23.53	9	52.94
5.00	5	29.41	14	82.35
6.00	1	5.88	15	88.24
7.00	1	5.88	16	94.12
8.00	1	5.88	17	100.00
9.00	0	.00	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	1	=====
2.00	2	============
3.00	2	============
4.00	4	=======================
5.00	5	=============================
6.00	1	=====
7.00	1	=====
8.00	1	=====
9.00	0	

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 5. Q59-5

Civilian - Interaction With Interesting People

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	5	8.20	5	8.20
3.00	14	22.95	19	31.15
4.00	10	16.39	29	47.54
5.00	8	13.11	37	60.66
6.00	7	11.48	44	72.13
7.00	10	16.39	54	88.52
8.00	4	6.56	58	95.08
9.00	3	4.92	61	100.00
TOTAL	61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	|
2.00	5	|==========
3.00	14	|============================
4.00	10	|====================
5.00	8	|================
6.00	7	|==============
7.00	10	|====================
8.00	4	|========
9.00	3	|======

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HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 5. Q59-5

Military - Interaction With Interesting People

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	1	5.88	1	5.88
2.00	2	11.76	3	17.65
3.00	2	11.76	5	29.41
4.00	1	5.88	6	35.29
5.00	2	11.76	8	47.06
6.00	2	11.76	10	58.82
7.00	3	17.65	13	76.47
8.00	2	11.76	15	88.24
9.00	2	11.76	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	1	=========
2.00	2	==================
3.00	2	==================
4.00	1	=========
5.00	2	==================
6.00	2	==================
7.00	3	===========================
8.00	2	==================
9.00	2	==================

--------------------- FREQUENCY DISTRIBUTIONS ---------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 6. Q59-6

Civilian - Training Opportunities

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	3	4.92	3	4.92
2.00	3	4.92	6	9.84
3.00	6	9.84	12	19.67
4.00	10	16.39	22	36.07
5.00	5	8.20	27	44.26
6.00	9	14.75	36	59.02
7.00	11	18.03	47	77.05
8.00	11	18.03	58	95.08
9.00	3	4.92	61	100.00
TOTAL	61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	3	!=======
2.00	3	!=======
3.00	6	!==============
4.00	10	!=======================
5.00	5	!============
6.00	9	!=====================
7.00	11	!=============================
8.00	11	!=============================
9.00	3	!=======

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2    LABEL: SURVEY DATA
NUMBER OF CASES: 17    NUMBER OF VARIABLES: 9


       VARIABLE: 6. Q59-6

          Military - Training Opportunities

                                             ....CUMULATIVE...
       ===== VALUE =====   FREQUENCY   PERCENT   FREQUENCY PERCENT
           1.00                0        .00         0       .00
           2.00                1       5.88         1      5.88
           3.00                2      11.76         3     17.65
           4.00                2      11.76         5     29.41
           5.00                1       5.88         6     35.29
           6.00                3      17.65         9     52.94
           7.00                0        .00         9     52.94
           8.00                3      17.65        12     70.59
           9.00                5      29.41        17    100.00
                      TOTAL   17     100.00


       ===== VALUE =====   FREQUENCY ..............................
           1.00                0 :
           2.00                1 |=====
           3.00                2 |===========
           4.00                2 |===========
           5.00                1 |=====
           6.00                3 |=================
           7.00                0 :
           8.00                3 |=================
           9.00                5 |==============================
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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 7. Q59-7

Civilian - Good Relations With Coworkers

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	4	6.56	4	6.56
2.00	8	13.11	12	19.67
3.00	4	6.56	16	26.23
4.00	7	11.48	23	37.70
5.00	6	9.84	29	47.54
6.00	10	16.39	39	63.93
7.00	9	14.75	48	78.69
8.00	8	13.11	56	91.80
9.00	5	8.20	61	100.00
TOTAL	61	100.00		

===== VALUE =====	FREQUENCY	....
1.00	4	!==========
2.00	8	!====================
3.00	4	!==========
4.00	7	!==================
5.00	6	!===============
6.00	10	!=========================
7.00	9	!=======================
8.00	8	!====================
9.00	5	!=============

------------------- FREQUENCY DISTRIBUTIONS -------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 7. Q59-7

Military - Good Relations With Coworkers

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	0	.00	0	.00
2.00	3	17.65	3	17.65
3.00	1	5.88	4	23.53
4.00	2	11.76	6	35.29
5.00	3	17.65	9	52.94
6.00	2	11.76	11	64.71
7.00	2	11.76	13	76.47
8.00	2	11.76	15	88.24
9.00	2	11.76	17	100.00
	TOTAL 17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	0	:
2.00	3	|============================
3.00	1	|=========
4.00	2	|=================
5.00	3	|============================
6.00	2	|=================
7.00	2	|=================
8.00	2	|=================
9.00	2	|=================

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

VARIABLE: 8. Q59-8

Civilian - Prestige

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	3	4.92	3	4.92
2.00	3	4.92	6	9.84
3.00	3	4.92	9	14.75
4.00	4	6.56	13	21.31
5.00	7	11.48	20	32.79
6.00	5	8.20	25	40.98
7.00	4	6.56	29	47.54
8.00	9	14.75	38	62.30
9.00	23	37.70	61	100.00
TOTAL	61	100.00		


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===== VALUE =====    FREQUENCY ..............................
         1.00            3 |===
         2.00            3 |===
         3.00            3 |===
         4.00            4 |=====
         5.00            7 |========
         6.00            5 |======
         7.00            4 |=====
         8.00            9 |==========
         9.00           23 |============================
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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 8. Q59-8

Military - Prestige

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	1	5.88	1	5.88
2.00	1	5.88	2	11.76
3.00	0	.00	2	11.76
4.00	1	5.88	3	17.65
5.00	2	11.76	5	29.41
6.00	2	11.76	7	41.18
7.00	1	5.88	8	47.06
8.00	4	23.53	12	70.59
9.00	5	29.41	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	1	|=====
2.00	1	|=====
3.00	0	|
4.00	1	|=====
5.00	2	|==========
6.00	2	|==========
7.00	1	|=====
8.00	4	|====================
9.00	5	|=========================

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-------------------- FREQUENCY DISTRIBUTIONS --------------------

HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 61   NUMBER OF VARIABLES: 9

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    VARIABLE: 9. Q59-9

        Civilian - Opportunity to be Creative

| | | | ....CUMULATIVE... | |
===== VALUE =====	FREQUENCY	PERCENT	FREQUENCY	PERCENT
1.00	3	4.92	3	4.92
2.00	8	13.11	11	18.03
3.00	4	6.56	15	24.59
4.00	9	14.75	24	39.34
5.00	7	11.48	31	50.82
6.00	11	18.03	42	68.85
7.00	5	8.20	47	77.05
8.00	8	13.11	55	90.16
9.00	6	9.84	61	100.00
TOTAL	61	100.00		

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===== VALUE =====    FREQUENCY ..............................
      1.00           3 !=======
      2.00           8 !==================
      3.00           4 !==========
      4.00           9 !=====================
      5.00           7 !=================
      6.00          11 !==========================
      7.00           5 !============
      8.00           8 !==================
      9.00           6 !==============
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HEADER DATA FOR: B:RANKING2   LABEL: SURVEY DATA
NUMBER OF CASES: 17   NUMBER OF VARIABLES: 9

VARIABLE: 9. Q59-9

Military - Opportunity to be Creative

===== VALUE =====	FREQUENCY	PERCENT	....CUMULATIVE... FREQUENCY	PERCENT
1.00	1	5.88	1	5.88
2.00	3	17.65	4	23.53
3.00	1	5.88	5	29.41
4.00	2	11.76	7	41.18
5.00	2	11.76	9	52.94
6.00	2	11.76	11	64.71
7.00	4	23.53	15	88.24
8.00	1	5.88	16	94.12
9.00	1	5.88	17	100.00
TOTAL	17	100.00		

===== VALUE =====	FREQUENCY	....
1.00	1	|=======
2.00	3	|=====================
3.00	1	|=======
4.00	2	|==============
5.00	2	|==============
6.00	2	|==============
7.00	4	|============================
8.00	1	|=======
9.00	1	|=======

Coast Guard Workforce Analysis Survey Comments

Below are listed the comments written in on survey questions that requested a text response (v. forced distribution):

Question 20. What is the primary reason for not doing training? #5 - other:

"Hard to fit USCG folks into DOD training slots."

"There never is enough time, so you try to take it regardless."

"CG personnel have difficulty getting slots in the advanced Management of Defense Acquisition Contracts training classes."

"There is a need for CG to get an agreement with the DOD schools for 1102 training."

"Supervisor is hesitant to let people go."

"Poor scheduling of courses. Many courses are offered in August and September (end of FY) when employees can't be spared."

"Cannot get advanced Management of Defense Defense Acquisition Contracts."

"Management inertia."

"Cannot get quaranteed spaces in desired courses."

"Not enough DOD quotas."

"Too much work to do."

"Both 2 & 3 apply, not enough time and the need is for specialized training (especially on ADP procurement).

"Never enough spaces for CG."

"Lack of funding, lack of sufficient billets."

"If training is not done, time is always a factor."

"Likes/dislikes of supervisor."

"Lack of time to train senior personnel, we do training of junior personnel."

"Lack of a program."

"Is not considered a priority area by management."

"The training required is offered by DOD. We are not part of DOD, DOD employees are accepted first. Therefore very hard to attend DOD training."

"Workload does not allow for adequate time to be away."

"Availability of DOD courses to USCG and turnover rate."

"Lack of concern from chief of procurement."

"Shortage of personnel."

"Denial of supervisor."

"Based on team attendance."

"Never have enough time but we juggle workloads because training is priority."

Question 23. How do you find out about training and education opportunities? #5 - other:

"Personnel office."

"Call CG HQ or the Navy to see what courses they are offering."

"Contact AFIT or ALMC directly."

"Headquarters G-FPM announcements."

"Calling CG HQ for training schedules."

"GSA circulars and communications from COMDT(G-FPM)."

"Mailings from the training source."

"Trade publications, DOD listings and sometimes USCG HQ initiatives."

Question 24. In what area would you most like to receive formal training? #11 - other:

"Cost analysis in depth."

"Engineering basics for contracting personnel."

"Procurement Policy and Ship Repair."

"Cost - Price analysis."

"Contract Law and Competitive Contracting."

"Specific FAR Policy issues."

"Financial management in contracting."

"Coast Guard Contract Admin."

"Contract Law."

"Legal issues of contracting."

"Source Selection Procedures."

"R & D."

"Advanced Contract Administration."

"Negotiations."

Question 25. How should training courses be conducted and why?
    1 Locally prepared and administered
    2 Through other Federal agencies
    3 In conjunction with other Coast Guard commands
    4 Commercially prepared and administered
    5 Not at all
    6 Other:

"Ideally #2, realistically #4. Because #2 do a poor job of presentation but are probably better informed."

"With other CG - interchange capability."

"With other CG - can specifically orient to CG needs."

"In conjunction with other Coast Guard - eliminates subtle differences in procurement methods used by other agencies."

"#3 - to key on procurement by type of item and CG peculiar usages."

"In conjunction with other Federal agencies; we can learn new ways of accomplishing thru interaction with other agency's personnel."

"Through DOD - credibility."

"ALMC, AFIT and Navy courses are the best available."

"Commercial courses have better instructors - multi agency exposure."

"GSA has the tools to teach."

"Through other Federal agencies so we can get high quality DOD courses."

"Commercial courses are the best product."

"In conjunction with other CG to gain application of Federal laws to CG contracting."

"Commercially prepared and administered courses provide an opportunity to see how industry views contracting with Government agencies."

"In conjunction with other CG because you can obtain useful relevant information."

"DOD has best procurement training program."

"In conjunction with other CG Commands to ensure that we are all doing things according to the same or similar procedures."

"Commercial courses are best for their level of expertise and professionalism. If they are under contract and subject to evaluation and want the repeat business, they will try harder."

"ALMC or AFIT are the toughest and best courses."

"Commercial courses from my experience have been the most comprehensive and informative."

"DOD sponsored courses are excellent and provide a good basis for understanding the Federal procurement process."

"With other Coast Guard to maximize resources; provide CG relevant material; and ensure consistency within the CG."

"Inter-agency: with the advent of the FAR, training should be consistent in all agencies."

"In conjunction with other CG because of the classroom feedback from other CG commands."

"Commercial courses are more professionally accepted."

"Commercially conducted courses are of better quality."

"GSA or OPM can handle training for all agencies and do it locally in all Federal centers for local contracting professionals."

"Commercial courses seem to be more comprehensive and more professional."

"Combination of 2 & 4. Federal agencies tend to tailor their courses while commercial sources stick to the subject matter."

"#4 - contractor has greater incentive ($) and more time to do a good job of training."

"DOD schools - they have the best procurement courses presently available."

"Commercially prepared and administered has been proven effective."

"#4 - There are very good courses out there to be utilized. This is my first choice, all other choices are also good and should be used as deemed appropriate."

"Department of Defense have the best courses available."
"Send CG personnel to DOD courses because they are the best quality."

"Commercial courses are the most professional, tend to get better insight on contractor's perspective."

"DOD seems to give a variety of courses, which is significant."

"Commercial courses have the best resources."

"Only a combination of 1 - 4 can meet all our training needs due to variety of needs, intermittent demand and cost-effectiveness. FAI should help certify more commercial courses."

"Through other Federal agencies - allows cross-section of experience."

"Locally prepared and administered allows a monetary savings and convenience."

"#1 - tends to present training relevant to agency/customer requirements."

"With other Coast Guard to have uniformity."

"Through other Federal agencies because the CG does not have the resources."

"Locally prepared and administered - easier to attend, less expensive for the Government."

"#2 - the Coast Guard is not large enough and advanced in the regulations as larger agencies."

"DOD courses are more indepth study and discussions."

"With other Coast Guard, so everyone in the agency is using and applying the same format."

"With other Coast Guard - to learn exactly how it is required by the CG to perform my duties."

Question 26. How do you keep up with changes to laws and regulations?
#5 - other:

"CG instructions and notices and subscriptions to 'Government Contracts Service' and 'Federal Publications'."

"Federal Register FAC's."

"Federal Register - FAR Changes - etc."

"Commercial Publications (e.g. the Government Contractor)."

"All of the above (1-4) plus GSA seminar each year."

"Read FAR/TAR changes and the Federal Register."

"CCH Publications."

"Subscribe to Commerce Clearing House (CCH) weekly updates."

"Own efforts and Federal Register. Gripe: The TAR is still in Federal Register format, would like a loose leaf version that is updated by DOT."

Question 28. Are there any performance problems that you can identify that are a direct result of inadequate procurement training?

"Tentativeness in the cost and pricing areas. One two week course is not enough."

"No, most problems are due to lack of experience."

"Greater need for supervisory review, slower production due to need to research regs."

"Many - none of which I care to divulge."

"Supervised employees in previous positions I have held, making errors in interpreting regulations.   Also   keeping   current   on   FAR/DOT/CG instructions/orders/etc. How about putting it all in one volume?"

"Unfamiliarity with the FAR."

"Solicitations and contracts that we review have many flaws in basic package, i.e. missing clauses, improper use of provisions and clauses, etc., etc."

"Government contract pricing and contract type are problem areas due to inadequate knowledge of ins and outs of specification writing and the attendant contract admin problems."

"Inadequate usage of Federal Supply System."

"Engineering/technical people need more procurement training.   Generally speaking the ability of CG Contracting Officers to negotiate successfully is very low - I need negotiation training. I believe this is a direct result of relatively low level of formal education."

"Limited warrants."

"Must perform more detailed research to resolve situations."

"Since the CG doesn't have an adequate cost & pricing staff, the contract specialist must do a fair amount of cost & price analysis and it is felt more training is needed as far as what we should look for should we have to review a contractor's accounting system, what we should look for in cost breakdowns, etc."

"The quality of work performed by undertrained personnel is clearly demonstrated."

"As my responsibilities expand to more complex procurements I find I really only have a grasp of the basics, and it is difficult to find someone in the office that knows more than my limited knowledge in some advanced areas."

"Negotiations and cost & price analysis are inadequate."

"Having people put in contract positions with no knowledge or training in contracting."

"Contracting Officer's warrant limitations."

"Knowledge of regulations, current awareness in regulations, lack of timeliness in taking contractual actions required."

"Contract administration is poor."

"Cost reimbursement contracts: not authorized to enter into, perhaps due to formal lack of training. Cost/Price analysis: inability to properly establish prenegotiation position and conduct subsequent negotiations."

"Some contract specialists can neither write nor spell correctly, and have to obtain other files to use as models because they are not familiar with the format."

"Lack of understanding of good cost & price analysis for negotiations."

"Termination of contracts could be handled much better if I was allowed to take a course in contract termination."

"I have not had any training due to the fact that it is totally up to the supervisors. If they feel it is a good class - they approve, if not they disapprove. As it stands now, everything is disapproved."

"Proper interpretation of the FAR as it pertains to my contracts."

"Negotiation procedures."

"Contracting by negotiation and sealed bids."

Question 29. What is the _most_ effective procurement training you have had and why?

"The experience I brought with me from private industry. Government employees are unrealistic!"

"Management of Defense Acquisition Contracts (basic); learned to use the FAR effectively."

"NPS MS program in acquisition and procurement combined with financial management. Gives through/complete perspectives and allows one to quickly and expertly choose the proper response to a rapidly changing environment."

"The Defense acquisition management courses - length of course allowed time to fully digest information."

"DOD basic - covers all relevant material and well organized and instructors well qualified."

"Cost and Pricing course - helps during negotiations."

"Cost and price analysis and negotiation workshop; good information, required class participation and was immediately useful to me."

"Construction contracting - teacher very effective."

"Negotiations and Contract Law - very useful in present position."

"Contract Admin - basic."

"On-the-job and Defense acquisition management (advanced)."

"Law course at Wright-Patterson AFB; the Instructors were lawyers who provided a logical and comprehensive understanding of the legal aspects of contracting."

"Defense Contract Administration Courses (basic & advanced); excellent instructors."

"Government Contract Law - CSC - instructor was excellent and atmosphere was conductive to learning. Information was directly related to work."

"Cost and price analysis; one full week was allowed, subsequent to the classroom theory, for a mock cost/price negotiation."

"DOD basic procurement - most comprehensive."

"Advanced Contract Admin; my production increased as a result of this training."

"Defense Contract Law - challenging, interesting."

"Management of Defense Acquisition Contracts (basic); most timely and comprehensive course taken."

"Basic procurement course."

"Those subjects in which I need on the job."

"Interactive communication with other procurement activities to experience a greater range of procurement methods and techniques, i.e., building on others' experiences."

"Management of Defense Acquisition Contracts (basic) - intensive, well prepared, rigorous."

"Contract Administration - gives a broad overview of contracting."

"A-E contracts workshop. Excellent teachers."

"Advanced Contract Law - it was a workshop format with problems and discussions. Also Federal Publications Inc. courses because you have top authorities as speakers."

"Effective briefing techniques."

"on the job training."

"Commercial enterprises - you hear both sides of procurement; Government and private, also government workshops."

"OJT when you have an informed supervisor."

"Case study methods. Negotiating A/E contracts with those who actually have done it was very effective."

"GSA school - although too much in a short period of time, some are very effective."

"Management of Defense Acquisition Contracts (basic & advanced) - familiarizes you with the FAR."

"Management of Defense Acquisition Contracts (basic), because we learn why contracting must follow certain regulations, etc."

"Defense Contracts Basic - it was a comprehensive course that introduced me to all aspects of contracting. It was also conducted out of town, away from office distractions."

"Defense Contract Acquisition course at ALMC - both basic and advanced - they're the best."

"Management of Defense Acquisitions was most effective - instructor quality excellent. On-the-job training, however, is the most valuable training available."

"All DOD sponsored courses."

"Basic course, the instructor was good and the material was relevant to work."

"ALMC basic - very good course that covers all aspects of procurement."

"Contract Law at Wright-Patterson AFB (1979). Well prepared and presented."

"DOD basic course plus experience."

"Cost and Price analysis - provided basic understanding of various analytical methods and was applicable to contracting position."

"Working side by side with a senior contract specialist on a major procurement."

"Defense procurement management, ALMC. It was intensive, detailed, well organized."

"Classroom training with lots of classroom participation - learn a lot from other people's experiences."

"OJT - have not had time to attend much training."

"On the job."

"Contract Law - now fully understand why the regs are written the way they are."

"Management of Defense acquisition - a lot of information."

"Defense courses - better preparation and experience."

"On the job training with General Services Admin. We had training on regular basis to go over problem areas - new findings - contractual procedures."

"Management of Defense acquisition Contracts (basic & advanced) - touched upon many areas of contracting functions such as preaward functions, pricing, postaward functions."

"Art & technique of negotiation - MCI; it gave you the basics for negotiations."

"DOD basic - the course was through."

"Management of Defense Acquisition (basic) - because the course covered important elements of the procurement process."

"Basic - very informative & adequate timing for good understanding."

"MDACC (basic) and MDACC (advanced); these courses covered all facets of the acquisition process."

"Cost and Price analysis (MCI) - very good instructor, also asking many questions from people who have obvious knowledge of the field."

"Construction contracting given by MCI - through knowledge of subject by instructor. The instructor made the course very interesting."

"Basic - it gave an overall view of the contract administration process."

"Defense acquisition management - gave me a good understanding of what's involved in IFB's/RFP's preparation and procedures."

"Basic procurement - 3 week ALMC; very detailed - intense classroom and homework."

"Basic and Advanced procurement, cost/price analysis."

"Defense procurement management course (160 hrs); it provided all of the basics required for accomplishing most procurement jobs."

Question 30. What is the least effective procurement training you have had and why?

"From others in the office who learn by rote and, therefore, cannot apply experience to a different situation."

"GSA cost & price analysis - too little time, too much of it spent on price analysis."

"Management of Defense acquisition contracts (basic) because it followed NPS training and was primarily concerned with preaward issues...of little job applicability to admin."

"Couple of day courses by GSA and OPM."

"Contract Law - poorly organized."

"GSA and private contractor - poor quality."

"Contracting with small/minority business. Redundant, most information was covered in MDACC (basic)."

"Basic procurement - teacher not knowledgeable."

"Management of Defense acquisition contracts (advanced) - course mostly concerned with purchasing major defense systems - which had no relevance to me or to any of the rest of the class."

"Federal procurement practices - Manhattan Community College; not advanced enough."

"Utilities seminar - not involved with my work at the time, so I lacked interest and didn't use information, so did not retain much."

"GSA contract administration - poor instructor."

"Defense cost and price analysis - electronic blackboard and audio conducted. No instructor was present in the classroom."

"In-house courses where subject matter not adequately covered."

"On-the-job training in situations that require chronic firefighting."

"Sealed bidding - I already knew the material from OJT."

"Construction contracting - teacher was unprepared and didn't know subject matter."

"Most GSA training is ineffective except for the very basic training."

"Formal workshops. Too much time spent on unrelated subjects."

"Correspondence method. Successful Contracting Officer training is the result of doing it or participating in it...reading about it and learning facts is generally of little use."

"Coast Guard seminars - not enough time."

"Cost and price analysis - do not feel it is through enough for a contract specialist to perform cost and price analysis and thoroughly evaluate proposals."

"None, every course you always gain some knowledge."

"Contracting with small/disadvantaged business. Too much time (3 days) and too little information."

"Advanced cost and price course contractor given - sponsored by the EPA and a negotiation workshop done by GWU - they were terrible."

"GSA training seems to be 'hit of miss' depending on the quality of the instructor; example: contracting for commercial services was a miss...could have read the FAR instead."

"Research and development contracting - GSA. The instructor was not up on the course subject. He provided a general overview of the contracting process, very little on R & D contracting."

"8(a) contracting. The course covered very basic issues already known and had little relevancy to my current duties."

"Small and disadvantaged business contracting - lack of knowledge by the instructor."

"Advanced Contract Law. DOT (MCI) 1987, very poorly prepared."

"Claims management."

"Types of Government contracts - provided no value to on -the-job decision process for determining type of contract."

"Local OJT with other staff helping."

"EPA/CG advanced contract management."

"Principles and applications of value engineering. It was taught and organized nonprofessionally and was taught based on a presumption of prior knowledge which was in fact lacking."

"Lectures with no classroom participation - lose interest in what is being taught."

"Government course are fairly equal across the board."

"GSA small purchase course was not too specific."

"Any GSA procurement course - inadequate instructors."

"Individual training by supervisor - many times the supervisor is not up to date on current in-office procedures or practices - better as group training."

"None, all courses are beneficial."

"Cost and price analysis and negotiation workshop - not indepth for job related factors."

"Cost analysis conducted by MCI at the Yard, was held for 1/2 day sessions over a 2 week period."

"Being here has offered little or no training from management. Asking questions for 15 months has worked best."

"Two different seminars given at George Washington University. Subject matter presented at the top management level."

"Defense small purchase - it did not discuss the fundamentals of purchasing."

"Defense Acquisition Management - EPA: did not directly apply IAW Coast Guard regulations."

"Incentive contracting - Coast Guard really won't use this."

"Procurement Law - class was instructed poorly."

"Cost accounting standards. My office will probably never get involved in some of the dollar amounts to use the information acquired."

Question 81. To what extent are you satisfied with your present job?

"Very satisfied: Procurement makes or breaks the unit. If military - the readiness/response time. If industrial - profit or loss...this is where its at!"

"Satisfied: All in all, the training offered contracting personnel in this command is exceptional."

"Very dissatisfied because of 12 hour days and inadequate support staffing."

"Very satisfied: It is challenging, interesting - great staff."

"Very Satisfied: The people and work surrounding."

"Satisfied: I enjoy the location and work environment."

"Very satisfied: It is challenging and with handling contracts from cradle to grave you get a wide variety of experience."

"Satisfied: I enjoy being involved in the procurement of a major acquisition for the Coast Guard. Interesting, challenging work. My role is important and unusual for a junior Officer to have such responsibility."

"Satisfied: Need to do more contracting ($25K+); pay is extremely poor for responsibilities given to a GS 7 - 11."

"Dissatisfied: Workload."

"Satisfied: Never dull, always changing."

"Very satisfied: Superior working conditions - excellent and talented Coast Guard personnel to work with!"

"Satisfied: My knowledge is respected and my talents are used. The job is challenging and people I work with are good and competent."

"Very satisfied: Office personnel, supervisor & interesting projects."

"Very satisfied: I find the work interesting and challenging and I enjoy working with the people in this office."

"Very satisfied: Greater opportunities than previous employment to have an effect on agency procurement systems."

"Satisfied: Good organization, good people, good work environment."

"Satisfied: Good professional staff (with some exceptions)."

"Very satisfied: The job is interesting, rewarding and challenging."

"Dissatisfied: Pressure to circumvent the proper procurement regulations."

"Satisfied: Am able to work independently and my decisions are seldom questioned."

"Very satisfied: My job is challenging, there is promotion potential."

"Very satisfied: I have good co-workers and a very good supervisor."

"Very satisfied: Great supervisor who is very knowledgeable in contracting - learning a lot from him, interesting work, great location."

"Dissatisfied: Supervisor is like a 'bull in a china closet' or 'haste makes waste'."

"Dissatisfied: Poor - untrained and unsupportive management personnel."

"Satisfied: We get the best value we can for the dollar but in many cases are frustrated by socioeconomic programs."

"Dissatisfied: There is no leadership - no supervisor with knowledge of contracting."

"Dissatisfied: Inadequate resources/staffing/grade levels."

"Dissatisfied: Location/lack of space/poor management/low morale/lack of concern about low morale and contributing factors."

"Dissatisfied: Doing the same job as higher grade for less pay. Due to workload unable to receive training."

"Dissatisfied: Lack of training, consistency, etc."

"Very dissatisfied: Command will not allow me to do all things by the book."

"Very satisfied: Work challenging, like co-workers and supervisors, my efforts are appreciated."

"Very dissatisfied: Too many collateral duties and no authority to act on my own."

Satisfied: Reduced number of non-competitive awards by pursuing aggressive source solicitation procedures."

GENERAL COMMENTS SUBMITTED AT THE END OF THE SURVEY:

"FPM should do less studying of problems and become active in establishing CG procurement policy even if it runs counter to DOT."

"It is very encouraging to see the Coast Guard taking (at last) a real interest in training their acquisition people. I think a similar survey should be taken of program/technical personnel, without whom acquisition folks cannot efficiently do their job. Proper training of COTRs, QA, etc., is in my experience, inadequate. This is most important on major acquisitions. Before the Coast Guard commissions a new vessel the entire crew is trained so they can properly handle the ship. The same approach of comprehensive training should be given to the 'crew' that is going to be responsible for administering the contract to buy that vessel (or helicopter). 'On-the-job' acquisition training can be very expensive in many ways.

Question: Is the Coast Guard ever going to decide if contracting/acquisition should be a legitimate career path for Officers? If not, I am left with the choice of using my experience outside the Coast Guard if I wish to continue working in the field, or waiting for the next time I might by fate be assigned to this field again and have to be trained all over again."

"Formal training is excellent. However, I believe workshop seminars should be established for contracting officers and contract specialists based on what kind of contracts they deal with (question 69). We need more problem solving opportunities in addition to 'how to' training."

"The Coast Guard far surpasses the Navy in providing time and resources for training. Most acquisition personnel have not had an adequate educational background to perform effectively - I hope this is changing. Further, why aren't many courses video taped to be shown on a regular basis at local commands. If the instructors where good, and the courses (or just topics) relevant, tapes would be an inexpensive and valuable tool to provide much of the training required."

"Training should be extended to program offices involved in acquisition to the extent that they understand procurement matters are no longer just something to be blamed for causing program delays. Decision that affect Coast Guard acquisitions often must be a compromise between 'ideal' and 'practical' considerations. Practical limitations are often built in during the early acquisition planning stages and can be difficult or impossible to change."

"More importance needs to be placed on training and education. The Government needs to increase funding and encourage employees to attend training courses both on and off duty hours."

"Headquarters should monitor individual contract professional and prescribe training in accordance with their needs. All contract professional should be quizzed regularly regarding their knowledge of the regulations and procedures."

"Many items are procured on a regular basis by most every unit. Most of these items could be identified and a set procurement source identified

for them. There are also many items that do not live up to what is
needed, they should be identified and a list distributed to all units
identifying their less than desirable status. Set procedures should be
identified for the procurement of ADP equipment. All ADP equipment
should be screened and only ordered by certain regional procurement
offices. At present time there are five manuals and instructions to try
to interpret to purchase ADP equipment.   I and everyone else in
procurement can find a way to get around each one of them.   The
regulations are useless as they are now applied."

"Nearly every major procurement in the Coast Guard in the last ten years
has had major faults or difficulties. One of the principle reasons is
that the project managers did not understand the dynamics of the
procurement process. If the CG is to continue using Officers to do the
acquisitions they must insure that they have the necessary training and
'experience' before they are ordered into the job." Some of the classics
include: - Falcon Jet (engine problems)
                         - Aerospatiale Helos
                         - New class of cutters equipped with foreign made
engines which require foreign made parts."

"I do not feel we are kept abreast of training opportunities available to
CG personnel. We find out too late when spaces have already been filled.
We have to phone training personnel in HQ ourselves - very seldom see
anything sent to the field regarding future training opportunities."

"I would like to see more colleges and universities offer either a
certificate or degree program in contracting so these courses would be
more locally available. The current contracting courses are commercially
oriented and a lot of times the Government equivalent must be taken so in
essence, if you take a college course it doesn't provide the government
expertise."

"We need established training programs.   We also need to get more
training opportunities (more slots) for AFIT and ALMC courses. These are
the best - no question.   The local colleges also need to sponsor
contracting courses."

"More emphasis should be put on a continuation of education throughout
your career in procurement. It seems like once you are warranted,
training opportunities are not as available due to a variety of reasons
(e.g. not high priority, lack of funds)."

"The Coast Guard's 'Do more with less - can do' attitude, coupled with a
lack of respect for procurement personnel by program managers has ruined
many previously motivated and skilled procurement professionals.   I'll
take less pay anywhere else, if only I am appreciated."

"I would like to see unit comptrollers take some sort of procurement
orientation course. Most comptrollers for whom I have worked in the
Coast Guard know nothing about
procurement."

"Need more training but closer to home."

"I'm still in the learning process in the field of formal contracting, however I've had a few years of supply/small purchasing experience. I desire more training but feel the Coast Guard falls somewhat short of providing adequate training. I am now starting to see my command sponsoring contract/purchasing schools which is great!"

"I would like to see the Coast Guard contract to make DOD courses available to Coast Guard employees. This indepth training is truly necessary."

"Coast Guard doesn't provide enough training for its personnel so we can be competitive enough with DOD agency."

"Need more DOD courses, DOD courses rank higher than the commercial courses offered."

"More training is needed to compete with other Federal agencies for retention of qualified personnel as well as producing more and better contracts for the Coast Guard. A long hard look should also be taken of the screening process for upgrading clerk/typist into the procurement field. Most have not got the training necessary to qualify them for the intensity the contracting field requires."

"The Coast Guard personnel that I work with lack the knowledge and versatility of individuals that move from agency to agency. As a result, have much difficulty utilizing business judgement in making routine decisions. They look to the FAR for every answer."

"I wish that in the procurement office we had some sort of training program. It's totally up to the supervisors. If they want to approve or if they don't want to approve. There should be some kind of plan whereas everyone can get training. The training here is based on management concepts. If they cannot offer class, we do not take the class. We really need more help with training."
"Cross train personnel between small purchases and purchases over 25K. This would allow a greater degree of accuracy between contract determination based on knowledge vice guesstimation."

"It seems that people in procurement are always overworked and as a result sacrifice training to attempt keeping up with the work. Training is essential in our field; with all the changing rules and regulations. I have seen some management in the CG that feel that they can't afford to send their personnel to training. I have also seen others that will send their people to training and struggle through anyway they can because they feel its that important."

APPENDIX B.

Appendix B contains a copy of the telephone and personal interview form used in the course of this research. The data from these interviews was not coded or compiled in other that note card form.

This form served as the basic guide for the researcher in the interview process, particularly in the early stages of the research.

COAST GUARD TRAINING AND EDUCATION STUDY: INTERVIEW QUESTIONS

PERSON INTERVIEWED: _____ TITLE: _____

COMMAND/UNIT: _____ DATE(S): _____

A. TRAINING REQUIREMENTS AND IMPLEMENTATION CONSIDERATIONS:

1. WHAT TRAINING DO WE NEED? AT A MINIMUM LEVEL AND AT AN IDEAL LEVEL?

_____
_____
_____
_____
_____
_____
_____
_____
_____

2. HOW ARE TRAINING REQUIREMENTS ESTABLISHED? ... BOTH FOR A POSITION (VIA PD's?) AND AN INDIVIDUAL._____

_____
_____
_____
_____
_____
_____
_____
_____

3. HOW IS TRAINING IMPLEMENTED? WHO TRACKS THE TRAINING REQUIRED AND THE TRAINING ACCOMPLISHED AND HOW?_____

_____
_____
_____
_____
_____
_____
_____
_____

4. HOW DO YOU BUDGET FOR THE TRAINING YOU NEED/DO?_____

_____
_____
_____
_____
_____
_____
_____
_____

5.   WHAT IS THE IDEAL AMOUNT OF TRAINING YOU WOULD LIKE TO HAVE?
HOW IS THAT IDEAL AMOUNT/TYPE DETERMINED?_____

_____
_____
_____
_____
_____
_____
_____
_____

6.   WHAT DO YOU IDENTIFY AS YOUR SINGLE MOST PRESSING TRAINING
NEED? WHY?_____

_____
_____
_____
_____
_____
_____

7.   HAVE DODD 5000.23 & 5000.48 CHANGED ANYTHING YOU ARE DOING
WITH RESPECT TO TRAINING?   DO YOU HAVE IMPLEMENTING PAPERWORK?
DOES A LOCALLY PREPARED, WRITTEN TRAINING POLICY STATEMENT EXIST?
(WHAT DOES IT LOOK LIKE?)_____

_____
_____
_____
_____
_____
_____
_____

8.   HOW DO YOU KEEP YOU ACQ PERSONNEL CURRENT? IN OTHER WORDS
HOW IS TRAINING DONE FOR:
   (A)   CHANGES IN LAWS, STATUTES, REGULATIONS AND POLICY:
   (B)   MATERIAL IN GAO, CMR, IG AND AUDIT REPORTS:
   (C)   CHANGES TO PROCEDURES AND TECHNIQUES (I.E. STATE OF THE
ART): _____

_____
_____
_____
_____
_____
_____

9.   ARE CMR, GAO, AUDIT DISCREPANCIES TRANSLATED INTO SPECIFIC
OBJECTIVES?_____

_____
_____
_____

10. DO LOCALLY PREPARED FORMS EXIST TO ASSIST PERSONNEL IN THE
PERFORMANCE OF THEIR DUTIES? WHO UPDATES THEM? EXAMPLES?_____

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_____
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_____

11. HOW DO YOU QUANTIFY THE BENEFITS OF TRAINING?_____

_____
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_____
_____

12. WHAT DO YOU THINK ABOUT CERTIFICATION PROGRAMS?_____

_____
_____
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_____
_____
_____
_____

13. IS PERIODIC REFRESHER TRAINING CONDUCTED (NON INCIDENT
RELATED)?_____

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_____
_____
_____
_____

14. HOW MANY TRAINING COURSES A YEAR CAN AN INDIVIDUAL DO?

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_____
_____
_____
_____

15. ARE TRENDS IN TRAINING MONITORED?_____

_____
_____
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_____

16. WHAT SPECIFIC AREAS OF WEAKNESS SHOULD TRAINING ADDRESS?: _

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_____
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_____
_____

17. WHAT FORM SHOULD THIS TRAINING TAKE?: _____

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_____
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_____

18. AT WHAT POINT IN THE CAREER PATTERN SHOULD THIS TRAINING
TAKE PLACE, AND HOW OFTEN SHOULD IT TAKE PLACE?: _____

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_____
_____
_____
_____
_____

19. WHAT LEVEL OF KNOWLEDGE SHOULD THIS TRAINING PRESUME?: _____

_____
_____
_____
_____
_____
_____

20. IS TRAINING ORGANIZATIONALLY SUPPORTED? IS TRAINING AN ORGANIZATIONAL GOAL (ON A LEVEL WITH PALT, % COMP's, ...)?

_____
_____
_____
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_____

B. TRAINING ACCOMPLISHMENT

21. WHAT TRAINING ARE YOU ACTUALLY ACCOMPLISHING?_____
_____
_____
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_____

22. WHAT TRAINING DOES INDUSTRY DO?_____
_____
_____
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23. DO YOU USE VIDEO TAPES, (NCMA STUFF...)?_____
_____
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_____

24. DO YOU SPONSOR, PROMOTE OR REQUIRE CERTIFICATION PROGRAMS?
_____
_____
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_____

25. DO YOU KNOW OF ANY VERY SUCCESSFUL TRAINING PROGRAMS (IN ANY AREA) WHAT MAKES THEM SUCCESSFUL?_____

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_____
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_____
_____

26. DO CORRESPONDENCE COURSES WORK?_____

_____
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_____
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27.   WHAT CURRENT TRAINING PROGRAMS ARE CURRENTLY AVAILABLE: __

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_____
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_____

28. HOW DO YOU GET QUOTAS TO TRAINING COURSES?_____

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_____
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_____

29. HOW DO YOU DECIDE WHO GOES TO TRAINING? (PERFORMANCE-GOOD/BAD. AVAILABILITY BASIS...)_____

_____
_____
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_____

30. HOW IS TRAINING PARTICIPATION ENFORCED/ENCOURAGED?_____
_____
_____
_____
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_____
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_____

31. ARE THERE TRAINING `NEEDS FOR WHICH NO SOURCE OF SUPPLY
EXISTS? WHAT NEW COURSE WOULD YOU LIKE TO SEE? WHAT FORM
SHOULD IT TAKE?_____
_____
_____
_____
_____
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_____
_____

32. WHAT PERSONNEL ARE THESE TRAINING PROGRAMS PRIMARILY AIMED
AT?:_____
_____
_____
_____
_____
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_____

33. WHAT LEVEL OF EXPERIENCE DO THESE TRAINING PROGRAMS PRESUME-
?:_____
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_____

34. ARE THESE PROGRAMS GENERAL OR DO THEY ADDRESS SPECIFIC
AREAS OF TRAINING?:_____
_____
_____
_____
_____
_____
_____

35.   IS THIS   TRAINING OFFERED AND/OR CONDUCTED?: _____

_____
_____
_____
_____
_____
_____
_____

36.   IF THE   ABOVE   TRAINING   IS   NOT   BEING   OFFERED,   WHY NOT?:
(LACK OF   AWARENESS. TIME CONSTRAINTS. COST. LACK OF RELEVANCE): _

_____
_____
_____
_____
_____
_____
_____

37. IS THERE AN ACQUISTION LIBRARY MAINTAINED AT YOUR COMMAND?

_____
_____
_____
_____
_____
_____
_____
_____

38. DOES   THE   OFFICE   SUBSCRIBE   TO   ANY   PROFESSIONAL JOURNALS,
MAGAZINES,...?   HOW ARE THEY "USED"?_____

_____
_____
_____
_____
_____
_____
_____

39.   DO YOU HAVE A   DESK GUIDE THAT "COOKBOOKS"   THE ACQUISITION
FUNCTION?_____

_____
_____
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_____
_____

40. WHERE DOES THE PROCUREMENT TRAINING FUNCTION RESIDE?

_____
_____
_____
_____
_____
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_____
_____

41. WHO IS RESPONSIBLE FOR THIS TRAINING?: _____

_____
_____
_____
_____
_____

42.. WHY SO PROBLEMS PERSIST DESPITE AVAIALBLE TRAINING?: _____

_____
_____
_____
_____
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43. WHAT TRAINING IS NECESSARY FOR CAREER DEVELOPMENT?: _____

_____
_____
_____
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_____
_____
_____
_____

44. WHAT ARE OTHER AGENCIES DOING TO ADDRESS THE PROBLEMS
DISCUSSED ABOVE?: _____

_____
_____
_____
_____
_____
_____

45. WHAT LOCALLY DEVELOPED PROGRAMS ARE AVAIL TO MEET THESE
TRNG NEEDS?: _____

_____
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_____
_____

46. DO YOU HAVE THE TIME TO SUPPORT A COMPREHENSIVE TRAINING
PROGRAM?_____
_____
_____
_____
_____
_____
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_____

47. WHAT EFFECT WOULD THIS TRAINING HAVE ON THE THROUGHPUT AND
EFFICIENCY OF PERSONNEL?_____
_____
_____
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48. HOW DO WE ELEVATE THE STATUS OF SMALL PURCHASING?_____
_____
_____
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_____

49. HOW DO YOU AWARD WARRANTS?_____
_____
_____
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_____
_____

50. WHERE ARE PD's ON FILE?
_____
_____
_____

51. DO OVERLAPS EXIST IN THE JOBS BEING DONE BY 1102/5/6's? DOES
THIS CAUSE CONFUSION?_____
_____
_____
_____
_____
_____

52. HOW   IS THE MORALE/ATTITUDE IN THE PURCHASING DIVISION? _____
_____
_____
_____
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_____

53. DO YOU RECRUIT?, HOW? _____
_____
_____
_____
_____
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    C.   CURRENT PROBLEMS:

54. HOW DO YOU ADDRESS THE PROBLEM OF TRAINING PEOPLE TO GO ELSE-
WHERE? _____
_____
_____
_____
_____
_____
_____

55.   WHAT   PERFORMANCE   WEAKNESSES   ARE   CONSISTENTLY   CITED BY
AMR'S?: _____
_____
_____
_____
_____
_____

56.   WHAT ARE   THE   CAUSES OF THE WEAKNESSES THAT RECUR DURING
AMR'S?: _____
_____
_____
_____
_____
_____

57. WHAT SPECIFIC TRAINING SHORTCOMINGS ARE NOTED BY SUPER-
VISORS?: _____

_____
_____
_____
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_____

58. WHAT DO SUPERVISORS ATTRIBUTE TO THE CAUSE OF THESE SHORT-
COMINGS: _____

_____
_____
_____
_____
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_____

59. WHAT ARE THE CURRENT TRAINING AND PERFORMANCE PROBLEMS AS
SEEN BY THE FIELD PERSONNEL THEMSELVES?: _____

_____
_____
_____
_____
_____
_____
_____

60. WHAT ARE THE AREAS IN WHICH FIELD PERSONNEL FEEL TRAINING
IS INADEQUATE?: _____

_____
_____
_____
_____
_____
_____
_____

61. DO PERSONNEL DESIRE TO CAREER BRIDGE? WHAT TRAINING IS
REQUIRED FOR CAREER DEVELOPMENT? IS IT ORGANIZATIONALLY SUPPORT-
ED? IS IT AN EVALUATION CRITERIA OF THE INDIVIDUAL? _____

_____
_____
_____
_____
_____
_____
_____

62.   IS CAREER DEVELOPMENT SUFFERING AS. A RESULT OF THESE
PERCEIVED, INADEQUACIES   IN TRAINING?: _____

_____
_____
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_____
_____
_____

63.   WHAT ORGANIZATIONAL PROBLEMS EXIST THAT HINDER   THE PROCURE-
MENT FUNCTION?: _____

_____
_____
_____
_____
_____
_____

64.   DO YOU HAVE ANY RECOMMENDATIONS FOR PEOPLE I SHOULD TALK TO?

_____
_____
_____
_____
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_____

National Contract Management Association
Education and Training Program Structure (ETPS)

NCMA has developed this program structure under the guidance of Dr. Harry Page and based on questions asked over the years in the Certification examinations. The program structure represents NCMA's statement on the body of knowledge required to be a professional in contract management. It is intended to be a dynamic statement, subject to revision. All of the NCMA materials under development relate to this program structure. Comments are invited and should be sent to NCMA Education Department, 6728 Old McLean Village Drive, McLean, VA 22101.

Basic Tools and Functions

Contracts and Procurement

Special Topics and Considerations

APPENDIX D.

Appendix D contains a copy of Department of Defense Directive 5000.48 dated 15 December 1987. This directive establishes the minimum training, education, and experience requirements for DOD procurement personnel.

Also enclosed are some recommended changes to DODD 5000.48 by the Army Logistics Management Center (ALMC). It is interesting to note the positive education requirements as well as the additional training required by this instruction.

DOD DIRECTIVE 5000.48, "EXPERIENCE EDUCATION AND TRAINING REQUIREMENTS FOR PERSONNEL ASSIGNED TO ACQUISITION"

SUBJECT: Experience, Education, and Training Requirements for Personnel
Assigned to Acquisition: Contracting, Quality Assurance, and
Business and Financial Management

References: (a) DoD Directive 5000.23, "Systems Acquisition Careers,"
(b) DoD 1430.10-M-1, "DoD-Wide Civilian Career Program for
Contracting and Acquisition Personnel," December 1982,
authorized by DoD Instruction 1430.10, June 22, 1981
(c) DoD 1430.10-M-2, "DoD-Wide Civilian Career Program for Quality
and Reliability Assurance Personnel," March 1980, authorized
by DoD Instruction 1430.10, June 22, 1981
(d) Office of Personnel Management Handbook X-118, "Quali-
fication Standards for Positions Under the General Schedule,"
January 1975
(e) Federal Personnel Manual, Chapter 335, "Promotion and Internal
Placement" and Chapter 338, "Qualification Requirements
(General)," May 16, 1979

A. PURPOSE

This Directive establishes experience, education, and training requirements
for military and civilian personnel assigned to contracting, quality assurance,
and business and financial management positions in the Department of Defense,
and supports the concepts established in references (a) through (c).

B. APPLICABILITY AND SCOPE

1. This Directive applies to the Office of the Secretary of Defense (OSD)
and its field activities, the Military Departments (including their National
Guard and Reserve components), the Organization of the Joint Chiefs of Staff
(OJCS), the Unified and Specified Commands, and the Defense Agencies (hereafter
referred to collectively as "DoD Components").

2. This Directive applies to positions identified in enclosures 1 through 7.
It includes military officer and enlisted positions in the categories specified,
as well as civilian positions in their respective occupational codes in the
competitive and excepted service schedules A, B, and C, and in the Senior
Executive Service.

C. POLICY

It is DoD policy to prepare and assign fully qualified individuals to
contracting, quality assurance, and business and financial management posi-
tions. Final authority for the establishment of minimum educational standards
for civilians is contained in the current edition of reference (d). To the
extent the mandatory requirements herein differ from the Office of Personnel
Management (OPM) Handbook X-118 (reference (d)), they will be treated as quality
ranking factors for identifying the best qualified from among the minimally
qualified candidates consistent with the current edition of the Federal Personnel
Manual, Chapters 338 and 335 (reference (e)).

D. RESPONSIBILITIES

1. The Under Secretary of Defense (Acquisition) (USD(A)) may modify,
extend, or eliminate the experience and training requirements contained in
enclosures 1 through 7, in consultation with the Assistant Secretary of
Defense (Force Management and Personnel).

2. The Assistant Secretary of Defense (Force Management and Personnel)
(ASD(FM&P)) shall provide staff advice and assistance in realizing the purpose
and policy contained in this Directive.

3. The Heads of DoD Components shall integrate the experience and training
requirements shown in enclosures 1 through 7 or subsequently established, with
the military and civilian personnel assignment policies and procedures of their
respective organizations, consistent with DoD 1430.10-M-1, DoD 1430.10-M-2,
OPM Handbook X-118, and the Federal Personnel Manual (references (b) through
(e)). Each Component shall have a procurement intern program that is centrally
managed and controlled to provide a source of highly qualified candidates for
high level procurement positions.

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E. PROCEDURES

1. The experience, education, and training requirements shown in enclosure 7 shall be used to screen individuals proposed for assignment to contracting, quality assurance, and business and financial management positions. Individuals being cross trained in a functional area shall be subject to the entry level requirements for that function, regardless of grade or rank. The descriptions of duties in enclosures 1 through 7 are intended to be representative only and not all inclusive or limited in any way.

2. Certain requirements under this policy may be waived by appropriate command authority level as determined by the DoD Component. This includes the ability to waive grade, experience, education, or training requirements if an individual is determined to be otherwise qualified for the job series and level. Current employees, as of the effective date of this Directive, are not required to meet the experience and education prerequisites contained in this Directive. However, they are expected to satisfy all training requirements.

3. In applying the requirements specified in enclosures 1 through 7, education and experience criteria should be treated as those necessary to enter a specific level; training criteria are those required during a specific level, plus 1 year following.

F. EFFECTIVE DATE AND IMPLEMENTATION

This Directive is effective January 1, 1987. Forward one copy of implementing documents to the Under Secretary of Defense (Acquisition) within 120 days.

[signature]

William H. Taft, IV
Deputy Secretary of Defense

Enclosures - 7
1. Contracting Series
2. Property Administrator Series
3. Purchasing Series
4. Procurement Clerk and Assistant Series
5. Industrial Specialist Series
6. Quality Assurance Specialist Series
7. Business and Financial Manager Series

CONTRACTING SERIES

General Description: Contracting Series (GS-1102 & comparable military)

Includes: Contract Negotiator, Contract Specialist, Contract Administrator, Procurement Analyst, Price Analyst

1. Level I: GS 5/7, Officer 01/02.

Experience: Fulfilled by a baccalaureate degree.

Education: Baccalaureate degree acquired with 24 semester hours in accounting, economics, business law, procurement, or management-related studies.

Training: Mandatory

Management of Defense Acquisition Contracts (Basic)

Defense Cost and Price Analysis or Principles of Contract Pricing (latter mandatory for Price & Cost Analysts)

Defense Contract Negotiation Workshop

Defense Contract Administration (Basic)

Defense Small Purchase Course (Correspondence)

Duties:

Contract Specialist/Negotiator - Performs a variety of contractually related procurement functions: negotiates/evaluates fixed-price service, supply, or construction proposals/bids; solicits and prepares for award requirements of various program offices; conducts administrative monitoring of deliverables, obligations, payments, and other contractual requirements; conducts meetings with contractors to clarify issues; monitors contractor performance and progress; negotiates minor changes to contractual terms; negotiates delivery extensions. Assists higher-graded personnel in the preparation of a full range of contract actions and independently negotiates and performs assigned post-award actions on contracts for materials, services, and construction.

Contract Administrator. Administers a variety of fixed price service, supply, or construction contracts with standard--i.e., non-unique--contractual terms and conditions; conducts meetings with contractor to clarify issues; monitors contractor performance and progress; negotiates minor changes to contractual terms; and assists contracting officers, as necessary.

Price Analyst. Performs evaluation of price proposals; reviews audit findings in concert with senior Cost/Price Analyst; prepares recommendations for negotiation objectives; reviews or prepares price negotiation memoranda; and participates in negotiation process, as required.

2. Level II: GS 9/12, Officer 03/04.

Experience: Contracting experience of increasing complexity and responsibility, including at least 1 year at the GS-7 level or equivalent. Familiarity with the various functional and technical areas related to acquisition and contract management.

Education: Baccalaureate degree with 24 semester hours in accounting, economics, business law, procurement, or management-related studies. It is recommended that individuals begin graduate studies leading to a master's degree in business administration, procurement, management, or related fields that will prepare for entry to the senior level.

Training: Mandatory

(NOTE: The Head of a DoD Contracting Activity should require an employee to complete mandatory contracting courses before appointment as a contracting officer)

Management of Defense Acquisition Contracts (Advanced) or Advanced Contract Administration

Government Contract Law

Quantitative Techniques for Price and Cost Analysis (Price and Cost Analysts)

Contracting Officers' Course (Mandatory within 1 year of receipt of warrant)

Defense Contracting for Information Resources (Mandatory for personnel engaging in ADP acquisition)

Training: Desirable

Major Systems Acquisition for Contracting Personnel (to be developed) (Mandatory for contracting officers within 1 year of assignment to major program).

Duties:

Contract Negotiator

a. Serves as contract negotiator, responsible for the solicitation, analysis, evaluation, and negotiation of contractor proposals for research and development activities of one or more organizations. Procurements cover both cost reimbursement and fixed-price contracting in such areas as prototype development, and development of new and unique materials, requiring coordination, analysis, and detailed negotiation. Procurements also may cover options for follow-on work, unsolicited proposals, which may generate problems in proprietary rights, data, or patents; agreements with state or municipal jurisdictions; and extensive subcontracting.

b. Performs procurement planning and, in coordination with the technical program office, develops the contractual strategy to be used in the procurement of a specific contract program. Prepares required justifications and authorizations. Prepares and assembles solicitation documents. Processes and evaluates proposals received. Analyzes proposals, performs cost analyses, makes competitive range determinations, and develops a prenegotiation position. Negotiates individual contracts within the program to obtain services for the Government at a fair and reasonable cost within acceptable time frames. Designs final contract and makes recommendation for award.

c. Functions as team leader during contract negotiations. Coordinates throughout the procurement process with representatives from the program office, financial office, office of Counsel, and the small and disadvantaged business office representative. Analyzes data provided.

d. Serves as the principal contact for the contract, and represents the agency in conferences with industry and state and local governments pertaining to the procurement.

Contract Specialist

a. May be involved in highly specialized R&D programs, prototype development, limited production, follow-on activities, full-scale production services, or construction acquisitions that require telephonic or face-to-face discussions to resolve technical issues and contractual terms and conditions mutually agreeable to the parties.

b. Plans and coordinates contract strategy with the program office; prepares analysis and functions as team leader during negotiations. Prepares contractual documents for award, and acts as principal point of contact on award document. Works independently and in concert with contracting personnel to ensure adequate competition in contracting, reviews and acts as policy review assistant for non-complex contractual actions, and reviews facilities plans and modernization program.

c. Negotiates and administers a variety of fixed-price and cost-reimbursable contracts; monitors contractor financial status to ensure against over obligations; reviews technical specialists' reports regarding contractor performance, progress, and expenditures; acts as buying office focal point for contractor requests for waivers or deviation from contract terms; reviews, investigates, and recommends actions on contractor requests for changes in contractual terms and conditions; monitors requests for Government property and ensures timely receipt; reviews requests for progress payments; and requests audit determination on pricing actions and overhead rates.

d. Has knowledge of policies and procedures regarding inspection and acceptance of contract end items; represents the Government in termination for default or convenience, claims, and settlements; and performs close-outs of contracts, ensuring correct disposition of funds, property, special tooling, and equipment.

Contract Administrator

a. Administers a wide variety of more complex fixed-price and cost-reimbursable contracts, while typically assigned to a contract administration team. Contracts include fixed-price contracts with redetermination or escalation provision, incentive contracts and cost-plus fixed-fee contracts and a group of less complex contracts: firm fixed-price, indefinite quantity, bailment and facilities. Reads, analyzes, and interprets a variety of regulations, directives, assigned contracts, purchase orders, change orders, and supplemental agreements in order to ensure that the contracts shall be administered with the intent and provisions thereof. Makes necessary investigations and determinations and recommends and approves progress payments, Government-owned facilities and property, contractors' accounting systems and purchasing procedures. Recommends or approves various policies and procedures based on information, data, and recommendation of various technical personnel. Performs other spare parts negotiations, definitizations, and price redetermination. Negotiates other price adjustments, delivery schedules, and overhead rates up to the point of signature. Coordinates contractors' requests for deviations with technical personnel, and makes substantial recommendations regarding acceptance.

b. Develops recommendations of determinations and findings of fact in cases of disputes between the Government and the contractor. Confers with contractor's executive personnel to reconcile and clarify problems and situations. Responsible for reviewing, recommending, approving, or disapproving such matters as expenditures incurred on cost-reimbursement contracts, estimates of percentage of completion of payment of fixed-fee, special advance payment bank accounts, overtime requests, subcontracts, and purchase orders, etc. Responsible for administering contracts designated by Administrative Contracting Officers (ACOs) in other geographical areas to the extent delegation of authority permits. Assists in preaward surveys. Requests audit determination on pricing actions and overhead rates; advises Government and contractor personnel on policies and procedures regarding inspection and acceptance of contract end items; and performs close-out of contracts, ensuring correct disposition of funds, property, special tooling, and equipment.

Procurement Analyst

a. Is responsible for reviewing contracts and contracting actions for a variety of supply, service, and construction contracts; for developing guidance, and for providing technical advice, particularly for extensive negotiations involving cost of pricing data and special or unusual contract terms. Requirements typically range from standard to specialized items, e.g. equipment or services needed to support a research and development activity; ADP equipment, software, and related services; and alteration and repair projects.

b. Advises management and contracting officers on matters pertaining to contracting policies and procedures. Provides assistance upon request regarding specific situations or problems. Provides assistance upon receipt of changed procedures imposed by higher headquarters involving regulations, laws, and good business practices.

c. Conducts reviews of contracts or contract changes within predetermined categories based on dollar value, method of acquisition, and other factors. Reviews procurement packages for appropriate contract type; pricing provisions; selection of sources, acquisition method, determination, and findings; documentation; clarity of contract terms; propriety of cited funds, and need for issuance of unpriced contractual documents.

d. Develops guidance material for activity contracting personnel. Publishes informational material to state, clarify, and explain regulatory and policy changes; and to note recurring errors observed during contract review. Conducts training of contracting personnel to improve acquisition practices.

Price Analyst

Reviews and analyzes cost and price proposals for basic contract procurements,

...el agreements, and contract changes; develop negotiation objectives in conjunction with contracting office personnel; performs overhead reviews; assists in application of final cost objectives and price redeterminations; participates in Should Cost Analysis teams; prepares reports of price analysis, including review of audit and technical advice for forwarding to the contracting officer; assists contracting officer in resolving routine cost and accounting issues; performs analysis of profit; ascertains reasonableness of proposed labor and overhead rates, and of labor escalation factors through various indices; reviews price negotiation memoranda for compliance with audit tracking; monitors cost accounting systems; and reviews adequacy of costs for payment procedures.

3. **Level III:** (Contracting Series) GS 13/15, Officer 04 and above.

Experience: A minimum of 4 years of contracting experience of increasing complexity and responsibility, including at least 1 year at the preceding grade level or equivalent. Demonstrated knowledge of procurement policy and procedures sufficient to conduct negotiations and monitor contractor performance on complex contractual actions or extensive programs. Demonstrated knowledge of negotiation and post-award procedures and negotiation ability to represent the Government in contract terminations, claims, and settlements. Demonstrated skill in major weapon system or other complex negotiations, ability to prepare necessary documentation to support all business clearances and gain award approval, and ability to formulate policies and procedures. Demonstrated knowledge, skill, and ability to analyze financial data and to arrive at fair and reasonable negotiation objectives.

Education: Master's degree is highly desirable in business administration, management, procurement, or a contract-related field.

Training: Mandatory

Major Systems Acquisition for Contracting Personnel (to be developed) (Mandatory for contracting officers within 1 year of assignment to major program).

Defense Acquisition and Contracting Executive Seminar.
One or more of the following, as appropriate to job assignments:

Personnel Management for Executive Conference
or

Advanced Management Course
or

Executive Round Table
or

Management Development Seminar
or

Management of Managers Course
or

Managerial Assessment Orientation Seminar
or

Executive Center Seminars
or

Federal Executive Institute Program

Contract Specialist and Negotiator. Conducts discussions on significant, complex negotiation actions, including termination of contracts; acts as team leader in developing negotiation objectives by coordinating the requirements for awards. Reviews all business clearances and termination and claim settlements for accuracy and submits them for higher-level approval, as required. If Contracting Officer has a warrant, he or she reviews and evaluates all Government objectives developed by subordinates before negotiation authorization

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is granted. Determines extent of competition through maximum use of source identification systems, socioeconomic processes, and any other to maximize competition. Fully documents and substantiates decision of negotiation agreements on behalf of the Government, has skill in all negotiation techniques, and is able to meet and deal with private industry representatives and Government managers or experts and present positions regarding proposed negotiation actions.

Contract Administrator

a. Administers contracts, usually extending over several years and covering research, development, testing, production of complex equipment or programs, services, or construction. Ensures that the interests of the Government are protected at all times and that the contractor fulfills the contractual agreements. Makes necessary investigations and determinations and approves or disapproves all matters and requests of the contractors. Performs such functions as: approves contractor's progress; approves payment of contractor costs; acts as team captain and, in this capacity, obtains technical and specialized investigation, advice, and data from such personnel as auditors, price analysts, quality-assurance representatives, industrial specialists, and property administrators; coordinates contractor requests for deviations with buying activities and makes recommendations regarding contract item acceptance; negotiates price adjustments and delivery schedules; prepares determinations and findings of facts in cases of disputes between the contractor and the Government; personally initiates and signs correspondence, vouchers, memoranda, reports, and other documents that are binding on the Government; reconciles previously obligated funds and issues Provisioning Order Obligating Documents, etc. Responsible for consenting to the placement of subcontract and performing related administrative duties. Monitors the performance of the prime contractor and sub-contractors when progress payments are being made to the prime contractor. Confers with contractor's executive personnel and officials to adjust or clarify conflicting interpretations of the contract, contractual obligations, disallowable items of cost, etc. Negotiates forward pricing rates. Analyzes progress of work to promote more effective operations. Participates in conferences to develop current and long-range plans.

b. Advises on contract management matters and discusses new developments and possible changes in operations. Deals with a variety of contractor officials and representatives of higher headquarters and other agencies. Attends various conferences to discuss and resolve general problems or to negotiate a particular matter with contractor or procuring activity representatives.

Procurement Analyst. Responsible for the analysis and evaluation of contracting matters, and the initiation, development, and recommendation of contracting policies, procedures, guidance, and control for subordinate contracting activities within a department or agency.

a. Initiates, develops, and recommends contracting policies and procedures for the guidance and control of subordinate contracting activities. Evaluates and recommends disposition on requested waivers to statutory requirements.

b. Reviews, evaluates, and provides specific guidance concerning contracting policies and procedures relative to Government facilities, special tooling, special test equipment, component breakout, warranties, recovery of nonrecurring costs, high-dollar spare parts breakout program, industrial preparedness, production planning, and interdepartmental coordinated procurement.

c. Participates in the development of policy within the agency or department.

d. Provides advice and guidance on contracting matters to project managers and contracting officers at subordinate contracting activities.

e. Performs policy and compliance reviews on complex actions from the strategy phase through award; develops policy, procedures, and implementing guidance, as required, and responds to higher level activities' requests for information on a variety of procurement issues.

Price Analyst

4. Performs as Cost and Price Analyst and acts as supervisor in reviewing, evaluating, and assisting contracting personnel in developing negotiation objectives and strategies for major weapon systems of acquisition; assists senior-level management in formulating policies, guidance, and procedures to manage the acquisition function in a highly professional manner; reviews and evaluates audits for price and cost evaluations; and consults with contractor managerial personnel and auditors, as necessary, in resolution of pricing discrepancies.

b. Has knowledge of and ability to analyze current price trends and cost factors relative to evaluation of contractor proposals, including ability to perform extensive detailed analysis on individual elements of cost and profit.

PROPERTY ADMINISTRATOR SERIES

A. General Description: Property Administrator Series (GS-1103 & comparable military)

1. Level I: GS 5/7, Officer 01/04, E 1/7

Experience: Three years of general experience, of which 1 year must be equivalent to the GS-4 level. Knowledge and understanding of administrative, professional, analytical, or other work related to general business and industrial practices are required. Completion of a full 4-year course of study at an accredited college or university satisfies 3 years of general experience. (An academic year is equivalent to 9 months work experience.)

Education: Associate's degree or equivalent is desired.

Training: Mandatory

Industrial Property Administration

Management of Defense Acquisition Contracts (Basic) or Contract Administration

Defense Contract Property Disposition

Introduction to Data Processing or another ADP Appreciation Course of 40 hours duration

Duties: Performs as either an industrial property management specialist or industrial property clearance specialist, assisting the property administrator by conducting system surveys and managing plant clearance cases, including reviews of property for proper marking and utilization; reviews of scrap and salvage records to ensure compliance with approved procedures; and other assigned property system survey responsibilities, such as reviews of materials, special cost equipment, and special tooling in accordance with established procedures.

2. Level II: GS-9/12, Officer 03/05, E 8/9

Experience: Minimum 1 year of experience at GS-7 level or equivalent. Demonstrated knowledge of technical aspects of property administration is required.

Education: Associate's degree is desired, preferably with a major in a business-related field

Training: Mandatory

Advanced Property Administration

Government Contract Law

Duties: Performs as a property administrator or plant clearance officer. Develops and applies a system-survey program to test contractor procedures; analyzes contracts and establishes management control necessary for ensuring compliance with contract terms; determines reasonableness of consumption and liability for lost, damaged, or destroyed Government property.

3. Level III: GS 13/15, Officer 03/06, E 8/9

Experience: Five years of current, complex, and progressively responsible experience with at least 1 year at the GS-12 level or equivalent.

Education: Baccalaureate Bachelor's degree, preferably with a major in a business-related field is desired.

Training: Mandatory

Defense Acquisition and Contracting Executive Seminar

Personnel Management for Executives Conference
or
Advanced Management Course
or
Executive Round Table
or
Management Development Seminar
or
Management of Managers Course
or
Managerial Assessment Orientation Seminar
or
Executive Center Seminars
or
Federal Executive Institute Program

Duties: Formulates and implements policies and procedures pertaining to the management and control of Government property in the possession of contractors; provides guidance and direction to field activities having one or more property administrators or plant clearance officers; formulates and defends manpower requirements; and evaluates management and audit reports to determine need for corrective actions.

PURCHASING SERIES

A. General Description: Purchasing Series (GS-1105 and comparable military)

1. Level I: GS 4/6, E 1/7

Experience: Fulfilled by an associate's degree or 2 years of responsible office or technical experience.

Education: Associate's degree or 64 semester hours of undergraduate work desired.

Training: Mandatory

Defense Small Purchases

Defense Contract Administration or Management of Defense Acquisition Contracts (Basic)

Duties: Purchases supplies, services, and equipment through informal, open market methods and formal bid procedures for non-complex requirements

Level II: GS 7/8, E 6/9

Experience: Five years of current and progressively responsible experience with at least 1 year at the GS-6 level or equivalent.

Education: Associate's degree desired.

Training: Mandatory

Defense Cost and Price Analysis or Principles of Contract Pricing Management of Defense Acquisition Contracts (Advanced) or Advanced Contract Administration.

Duties: Purchases supplies, services and equipment through informal open market methods and formal bid procedures for non-complex requirements.

PROCUREMENT CLERK/ASSISTANT SERIES

A. **General Description:** Procurement Clerk/Assistant Series (GS-1106 and comparable military)

1. **Level I:** (Procurement Clerk), GS 3/5, E 1/7)

Experience: One year of clerical or office experience demonstrating accuracy and attention to detail.

Education: High School diploma

Training: None

Duties: Prepares and processes a wide range of procurement documents and other clerical work supporting contracting functions.

2. **Level II:** (Procurement Assistant), GS 6/7, E 6/9

Experience: Four years of clerical or office experience in a contracting office.

Education: Associate's degree desired.

Training: Mandatory

Defense Small Purchases

Defense Contract Administration or Management of Defense Acquisition Contracts (Basic)

Duties: Technical support work related to contract functions, such as assembling product and price data for negotiations or reporting contractor performance.

INDUSTRIAL SPECIALIST SERIES

A. **General Description:** Industrial Specialist Series (GS-1150 & comparable military)

1. **Level I:** GS 5/7, Officer O1/O4

Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience

Education: Baccalaureate degree is desired, preferably with a major in production management, industrial engineering, or related field.

Training: Mandatory

Management of Defense Acquisition Contracts or

Contract Administration

Production Management I

Duties: Ensures government-furnished property (GFP) and equipment are properly identified and obtained, and oversees repairs and maintenance of GFP in contractor hands. Participates in source selection, manufacturing management and production capability reviews, production readiness review teams, and preaward surveys. Conducts production progress surveillance, including reviews of contractor schedules to determine contractor progress in meeting hardware delivery schedules. Proposal evaluation responsibilities include evaluating contractor cost proposals for reasonableness of manufacturing hours, tooling requirements, manufacturing approach, lot sizing, and other parameters. Facility management responsibilities include evaluating contractor management of Government industrial facilities and industrial plant equipment.

2. **Level II:** GS 9/12, Officer O3/O5

Experience: For civilians, at least 1 year of experience at the GS-7 level or equivalent. Demonstrated knowledge of the nature and operations of an industry and the materials, facilities, and methods employed by the industry in producing products. This should include experience in determining needed production facilities and layout, including developing or evaluating specification and plans covering machine layout, operations, sequencing and material of production.

Education: Baccalaureate degree is desired, preferably with a major in production management, industrial engineering, or related field. Graduate study with a major in industrial engineering or production management is preferred.

Training: Mandatory

Production Management II

Management of Defense Acquisition Contracts (Advanced) or Advanced Contract Administration

Government Contract Law

Duties: Typically revolve around planning for and leading efforts of the type of duties listed at Level I.

3. **Level III:** GS 13/15, Officer O3/O6

Experience: At least 4 years of experience of increasing responsibility and complexity, with at least 1 year at the GS-12 level or equivalent. Demonstrated experience in the comprehensive survey and analysis of industrial operations, organization, capacity, and the like is desired.

Education: Master's degree, preferably with a major in production management, industrial engineering, or a related field, is highly desirable. Additional specialty courses and self-development training in the industrial and production management-related field are highly recommended. Attendance at an executive seminar center or professional military center is desired.

Training: Mandatory

Defense Acquisition and Contracting Executive Seminar

Personnel Management for Executive Conference
or

Duties: Develops procedures and techniques that encompass the full sequence of the quality assurance function; monitors contractor quality control operating procedures, methods, and techniques to ensure that the contractor performs quality assurance requirements; issues documents, writes reports, and correlates data covering conformance of supplies and materials; participates in pre-award and post-award surveys; recommends changes to correct quality assurance program deficiencies; has frequent personal contact with Government and contractor personnel; and issues reports identifying product or system deficiencies.

3. Level III: GS 13/15, Officer 04 or above

Experience: Five years of current, complex, progressively responsible experience with at least 1 year at the GS-12 level or equivalent.

Education: Baccalaureate degree, preferably in a physical science, is desired, with a major in engineering, production management, or quality assurance.

Training: Mandatory

Quality Assurance Management II or equivalent
Personnel Management for Executive Conference
or
Advanced Management Course
or
Executive Round Table
or
Management Development Seminar
or
Management of Managers Course
or
Managerial Assessment Orientation Seminar
or
Executive Center Seminars
or
Federal Executive Institute Program

BUSINESS AND FINANCIAL MANAGER SERIES

A. General Description: Business and Financial Manager
(Multiple GS series & comparable military.
This job title is not used by all Services.)

Duties: Typically is manager at contract administration activity. Has overall quality assurance authority via operation of the specific contract provisions, terms and conditions, applicable regulations and directives; has responsibility to ensure implementation of contractor management system evaluation programs or similar quality assurance programs; and manages manpower and allocation within the division. Exercises overall supervisory and managerial control to ensure successful operation of the quality assurance function throughout contractor facilities, and has approval and disapproval authority of contractor quality assurance system.

1. Level I: GS 5/7, Officer 01/03

Experience: Fulfilled by a baccalaureate degree or 4 years of progressively responsible employment in the area of finance, accounting, or budgeting.

Education: Baccalaureate degree is desired.

Advanced Management Course
or
Executive Round Table
or
Management Development Seminar
or
Management of Managers Course
or
Managerial Assessment Orientation Seminar
or
Executive Center Seminars
or
Federal Executive Institute Program

QUALITY ASSURANCE SPECIALIST SERIES

A. General Description: Quality Assurance Specialist Series
(GS-1910 & comparable military)

Duties: Supervises contract administration or system program office organization, or holds key staff position at headquarters level. Duties include management of the industrial preparedness program, supervision of policy formulation covering the Industrial Modernization Improvement Program, facilities management, manufacturing operations, related industrial policy issues.

1. Level I: GS 5/8, Officer 01/03

Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience.

Education: Baccalaureate degree, with 24 semester hours in physical science, mathematics, chemistry, industrial management, or related fields is desired.

Training: Mandatory

Four-week formal training in subjects to be recommended by the Defense Quality Assurance Council.

Defense Contracts Management for Technical Personnel or Defense In-Plant Quality Assurance or Quality Assurance Management I or DCAS Contract Quality Assurance or equivalent.

Duties:

Performs quality assurance studies of contractor quality programs to ensure contract compliance, assists in documenting nonconforming supplies and materials, performs inspection duties in preparation for higher level assignments, and prepares technical reports.

2. Level II: GS 9/12, Officer 03/04

Experience: One year of current quality assurance experience at the GS-7 level or equivalent.

Education: Baccalaureate degree with a major in engineering, production management, or quality assurance is desirable.

Training: Mandatory

Quality Assurance Management I or equivalent.

Training: Mandatory

Business Management Course

Management of Defense Acquisition Contracts (Basic)

Duties: Assists the Program Manager by performing various managerial tasks associated with such functions as budgeting, acquisition strategy development, business management, and financial resource control. Performs other business managerial efforts needed throughout the production and deployment phases of the acquisition life cycle. Encompasses staff and management functions peculiar to the acquisition of subsystems, systems and support equipment related to acquisition programs.

2. Level II: Staff positions in Business and Financial Management, and position of Business and Financial Manager of a non-major program. (GS 9/12, Officer 03/05).

Experience: A minimum of 1 year experience; 2 years are required for individuals holding the position of Business and Financial Manager (or equivalent) or supervisory positions in this functional area. Experience should be in program control, procurement, technical, budget or cost analysis, including assignments in government administration and plant representative officers, laboratories, logistics support offices, program offices, or functional staff budget or cost analysis offices.

Education: Baccalaureate degree with 24 semester hours in accounting, economics, business law, procurement or management related studies (or at least 12 hours of graduate studies in these fields) is highly desirable.

Training: Mandatory

Contractor Performance Measurement Course

Business Managers Advanced Workshop

Duties: Performs as the Program Manager's focal point for matters relating to overall business strategy for the program office, including direction and participation in efforts to establish the technical, military, and economic basis for a program in the conceptual phase. Includes various managerial and supervisory tasks associated with such functions as budgeting, acquisition strategy development, business management, acquisition strategy development, business management, and financial resource control.

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development, business management, and financial resource control. Performs all other business managerial efforts needed throughout the validation, full-scale development, and production and deployment phases of the acquisition life cycle of the system, including subsystems and system support equipment related to acquisition programs. Interfaces with contractors.

2. Level III: Business and Financial Managers of major programs (GS 13/15, Officer 04 and above).

Experience: A minimum of 4 years experience of increasing complexity and responsibility including at least 1 year at the GS-12 level or equivalent is required. Experience must be in program control, procurement, technical, budget, or cost analysis, and shall be gained through assignments in government administration and plant representative offices, laboratories, logistics support offices, program offices, or functional staff budget, or cost analysis offices.

Education: Master's degree is highly desirable in business administration, management, procurement, or related fields.

Training: Mandatory

Contractor Performance Measurement Course

Business Managers Advanced Workshop

Duties: Performs as the Program Manager's focal point for matters relating to overall business strategy for the program office, including direction and participation in efforts to establish the technical, military, and economic basis for a program in the conceptual phase. Includes various managers and supervisory tasks associated with such functions as budgeting, acquisition strategy development, business management, and financial resource control. Performs all other business managerial efforts needed throughout the validation, full-scale development, and production and deployment phases of the acquisition life cycle. Interfaces with contractors. Encompasses staff and management functions peculiar to the acquisition of subsystems, systems, and support equipment related to acquisition programs.

DOD DIRECTIVE 5000.23, "SYSTEM ACQUISITION MANAGEMENT CAREERS"

SUBJECT: System Acquisition Management Careers

References:
(a) DoD Directive 5000.23, "System Acquisition Management Careers," November 26, 1974 (hereby canceled)
(b) DoD Directive 5000.1, "Major Systems Acquisition," March 12, 1986
(c) Public Law 99-145, "FY 1986 Defense Authorization Act"
(d) Public Law 98-525, "FY 1985 Defense Authorization Act, (10 U.S.C. Section 139a Note)"
(e) through (1), see enclosure 1

REISSUANCE AND PURPOSE

1. This Directive:

a. Reissues reference (a).

b. Establishes eligibility criteria and policy for the selection, training, career development, and tenure of DoD personnel to be assigned as Program Managers or Deputy Program Managers of defense systems acquisition programs, and to certain positions in support of acquisition program management.

2. This Directive is subordinate to and supportive of the policies defined in reference (b), while implementing the requirements of references (c) and (d).

3. The term "acquisition", as used in this Directive, refers to the conceptualization, initiation, design, development, test, contracting, production, deployment, and logistic support of weapon and other systems, supplies, or services (including construction) to satisfy agency needs, intended for use and/or support of military missions

B. APPLICABILITY AND SCOPE

1. This Directive applies to the Office of the Secretary of Defense (OSD), the Military Departments, and the Defense Agencies (hereafter referred to collectively as "DoD Components") involved in the management of defense systems acquisition programs. The focus of this Directive is on the Program Manager, Deputy Program Manager, other principal deputies and assistants, and the civilian and military career programs necessary to prepare personnel to perform these functions.

2. In no case shall the policies and standards established in this Directive be interpreted to require the replacement of any individual serving in any affected position on the date of signature of this document. The policies established in this Directive shall apply to all assignments to effected positions made after the effective date of October 1, 1987. However, earlier implementation is encouraged.

C. POLICY

1. As specified in DoD Directive 5000.1 (reference (b)), it is DoD policy that each major program be managed by one individual, the Program Manager, who is supported by a team of individuals qualified in systems acquisition management. The Program Manager shall have ready access to senior management and be kept informed about decisions affecting his or her program.

2. The quality of the program management ultimately determines the success or failure of an acquisition program. So that the position of Program Manager and Deputy Program Manager may be filled by individuals with the highest possible qualifications, standards for education, training, and experience are established in paragraphs C.3.a, b., and c., below. Unless specifically waived by the Secretary of the Military Department concerned (or his single, Department-wide representative for less than major programs), every standard prescribed must be met before assignment as Program Manager or Deputy Program Manager. Final authority for the establishment of minimum educational standards for civilians is contained in the current issuance of the Office of Personnel Management (OPM) Handbook X-118 (reference (e)). To the extent the following mandatory educational requirements differ from the OPM Handbook X-118, they shall be treated as quality ranking factors for identifying the best qualified from among the minimally qualified candidates, consistent with the provisions of Federal Personnel Manual Chapters 335 and 338 (reference (f)).

3. A copy of each waiver of the requirements for Program Managers of major programs granted by the Secretary of the Military Department concerned shall be furnished immediately to the Under Secretary of Defense (Acquisition) (USD (A)).

a. Program Manager, Major Program. As required by Pub. L. 99-145 (reference (c)) for those programs defined as "Major Defense Acquisition Programs" (Selected Acquisition Review (SAR) Programs) or as defined in DoD Directive 5000.1 (reference (b)), the mandatory standards can be waived only by the Secretary of the Military Department concerned.

(1) Education

(a) A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in service schools may be used to satisfy the requirement.

(b) A master's degree in an appropriate field is desired.

(2) Training

(a) Successful completion of the Defense Systems Management College (DSMC) Program Management Course, or a comparable program management course approved by the USD (A) at another institution, is mandatory.

(b) Successful completion of the prescribed curriculum of an intermediate service school or an equivalent course for civilians is mandatory,

except that completion of the prescribed curriculum of a senior service school, or an advanced degree, or a command assignment, or a joint service assignment in acquisition may substitute for this requirement.

(c) Successful completion of the prescribed curriculum of a senior service school is desired.

(3) Experience

(a) At least 8 years of experience in the acquisition, support, and maintenance of weapon systems—at least 2 acquired while assigned to a procurement command—is mandatory. Not more than 40 months of time spent pursuing a program of postgraduate study in a technical or management field, or attending the DSMC Program Management Course (or a comparable program management course at another institution), normally should be counted toward the 8-year experience requirement.

b. Program Manager, Non-major Program. For individuals designated Program Managers of non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General or Flag officer or Senior Executive Service (SES) level.

(1) Education

(a) A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in service schools may be used to satisfy this requirement.

(b) A master's degree in an appropriate field is desired.

(2) Training

(a) Successful completion of the DSMC Program Management Course, or a comparable program management course approved by the Senior Procurement Executive of DoD at another institution, is mandatory.

(b) Successful completion of the prescribed curriculum of an intermediate service school is desired.

(3) Experience

(a) At least 3 years of experience in the acquisition, support, and maintenance of weapon systems—at least 1 acquired while assigned to a procurement command—is mandatory. Time spent pursuing a program of postgraduate study in a technical or management field, or attending the DSMC Program Management Course (or a comparable program management course at another institution), may be counted for up to 2 years of the experience requirement.

c. Deputy Program Manager, Major or Non-major Program. For individuals designated Deputy Program Managers of major or non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General or Flag officer or SES level.

(1) Education

(a) A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in service schools may be used to satisfy the requirement.

(b) A master's degree in an appropriate field is desired.

(2) Training

(a) Successful completion of the DSMC Program Management Course, or a comparable program management course at another institution, is desired.

(b) Successful completion of the prescribed curriculum of an appropriate service school is desired.

(3) Experience

(a) Deputy Program Manager, Major System. At least 3 years of experience in the support or maintenance of weapon systems or in acquisition—at least 1 acquired while assigned to a procurement command—is mandatory.

1 year of experience in the support or maintenance of weapon systems performed while assigned to a procurement command is desired.

(b) Deputy Program Manager, Non-major System. At least 1 year of experience in the support or maintenance of weapon systems performed while assigned to a procurement command is desired.

4. To achieve and maintain a reservoir of well-trained and talented junior-level individuals ready to move into the senior-level positions described in paragraphs C.3.a. through c. above, appropriate career fields must be developed and maintained. These fields must provide line and staff careers within the military and civilian professional series that support acquisition management.

5. Career opportunities shall be established to attract, develop, retain, and reward outstanding military officers and civilian employees for demonstrated performance in assignments designed to prepare managers for the positions of Program Managers or Principal Deputies and assistants. Civilian career programs shall be developed under the guidelines contained in DoD Instruction 1430.10 and DoD Directive 5000.48 (references (g) and (h)).

6. Military and civilian personnel performing satisfactorily in acquisition management positions as of the effective date of October 1, 1987 (and, if military, are identified as members of a Service's acquisition career force), but who have not fulfilled previously the educational requirements, are exempted from those requirements by virtue of proven performance.

D. RESPONSIBILITY

The Under Secretary of Defense (Acquisition) (USD(A)) shall monitor DoD Component implementation of the Directive and shall direct or recommend changes in DoD Component implementation, after consultation with the Assistant Secretary of Defense (Force Management and Personnel) (ASD (FM&P)), as appropriate.

E. CAREER CONSIDERATIONS

In establishing these civilian and military career fields, the DoD Components must, as a minimum, perform the following tasks:

1. Determine the qualifications for entry to and advancement in the individual fields, including the performance standards, experience, level of training, and formal education appropriate to each rank or grade. Conditional entry and upward mobility paths should be provided for individuals not qualified fully for entry, with high standards for unconditional entry and guaranteed return to previous employment for those not achieving entry qualification.

2. Determine the approximate number of personnel at each rank or grade and specialty required to man each career field for the foreseeable future. Ensure that grade levels are commensurate with the responsibility, authority, program accountability, and broad supervision exercised over functional and contractor activity. The grade structure in program offices should recognize the great importance and responsibility associated with the acquisition of the weapons systems and management positions that will defend this country well into the 21st century.

3. Develop military and civilian career plans that lead to the satisfaction of the requirements of sections C. above, and that include training and professional education requirements, identification of the mandatory and desired types and amounts of experience needed to assume upper level Program Management positions, administrative controls for these plans and the population enrolled in these plans, and provisions for advancement based on demonstrated performance.

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4. Maintain current rosters of the civilian and military personnel who have formally indicated a desire to become professionals in a recognized acquisition-related job series, specialty, or subspecialty, and the current qualifications of each individual on the roster.

5. Institute methods that centralize systems acquisition employment opportunity information so it is readily accessible to interested individuals.

6. Create maximum assignment flexibility for civilian employees within existing OPM regulations, including mobility agreements. Inter-component rotational assignments should be considered for developmental training as outlined in DoD Instruction 1430.10 (reference (g)). Permanent civilian employees may be placed in project management positions on a permanent type of reassignment or promotion, but with the understanding that they may be placed later in a position of equivalent grade and pay in a functional organization of the DoD Component.

7. Provide for release from and selection out of the acquisition management career fields, if the results of periodic reviews of performance indicate that such actions are appropriate.

F. TRAINING

1. Each DoD Component is responsible for identifying and training individuals to establish a cadre of military and civilian personnel adequate to meet its future needs for leadership in system acquisition management.

2. Professional education and training programs should provide for progressive growth at the entry, intermediate, and senior levels to meet standards set in section C. and subsection C.3. above, and those standards determined and set individually by each Component. Civilian employees shall be trained in accordance with DoD Instruction 1430.4 (reference (i)).

G. PERSONNEL MANAGEMENT

1. Performance measurements shall be developed and applied to ensure that only the most competent individuals are retained and advanced in system acquisition management career fields.

2. The Program Manager shall be held accountable for performance within his or her assigned responsibility. Performance evaluations shall take into account program-peculiar conditions.

3. Tenure of assignments must be sufficient to ensure not only effective management and evaluation, but also continuity of management. P.L. 98-525 (reference (d)) requires a military officer assigned as a program manager of a major defense acquisition program (see paragraph C.3.a. above) to have a tour of duty (a) of not less than four years; or (b) until completion of a "major program milestone" as defined in DoD Directive 5000.1 (reference (b)). This tenure requirement may be waived by the Secretary of the Military Department concerned, who may not delegate this responsibility.

a. For the purpose of this tenure requirement, "major program milestone" is defined as the occurrence of a predefined and measurable program achievement (such as a completed test, a capability demonstration, a product acceptance, or a major contract award or delivery), which generally will not coincide with a Joint Requirements Management Board presentation or decision. This transition methodology is established both to aid in program management performance evaluation and to reduce the likelihood of transferring hidden problems. There should be a period of overlap for the outgoing Program Manager and his or her replacement. Similarly, the rotation or assignment of key assistants should be controlled by the needs of the Program Manager to ensure a proper balance between effectiveness and continuity of management. No tenure policy stated above shall be interpreted to require that an individual whose professional performance of duty is not satisfactory to the reporting senior be retained in his or her position.

experience requirements prescribed in paragraph C.3.a., above. This requirement may be waived only by the Secretary of the Military Department.

7. Personnel should be selected on the basis of skills, experience, and the demonstrated performance needed to perform successfully the contemplated assignment within a program, regardless of military or civilian status.

8. EFFECTIVE DATE AND IMPLEMENTATION

This Directive is effective October 1, 1987. Two copies of implementing documents shall be forwarded to the Under Secretary of Defense (Acquisition) within 90 days.

William H. Taft, IV
Deputy Secretary of Defense

4. Opportunities for advancement in the acquisition career fields shall be equivalent to those of contemporaries in operational, line, and command positions. Where boards are established for the purpose of selecting individuals for advancement, they shall include experienced system acquisition managers to ensure that only the best qualified individuals, based on demonstrated performance, are selected for promotion.

5. As indicated in subsection t., above, a performance monitoring system for all personnel who are involved in .c aspire to be involved in the recognized career fields of defense system acquisition management shall be maintained by each DoD Component. Selection for key positions in management of major defense systems normally shall be from among those so tracked, and heavy reliance shall be placed on performance records, particularly in acquisition-related assignments, for determination of those best qualified.

6. General or Flag officers or civilian equivalents may be assigned to duty in a procurement command only if they meet the education, training, and

RECOMMENDED CHANGES TO DOD DIRECTIVE 5000.48

CONTRACTING SERIES (GS-1102 & COMPARABLE MILITARY)

LEVEL I: GS 5/7 OFFICER 01/03
ADD: DEFENSE SMALL PURCHASE (ADVANCED) (MANDATORY WITHIN
ONE YEAR OF RECEIPT OF SMALL PURCHASE WARRANT)

LEVEL II: GS 9/12 OFFICER 03/04
ADD: DEFENSE SMALL PURCHASE (ADVANCED) (MANDATORY WITHIN
ONE YEAR OF RECEIPT OF SMALL PURCHASE WARRANT)

MANAGEMENT OF DEFENSE ACQUISITION CONTRACTS (EXECUTIVE)
OR CONTRACT ADMINISTRATION (EXECUTIVE) (MANDATORY FOR
GS-12 WITHIN ONE YEAR OF RECEIPT OF OTHER THAN SMALL
PURCHASE WARRANT)

DELETE: CONTRACTING OFFICERS' COURSE (MANDATORY WITHIN ONE
YEAR OF RECEIPT OF WARRANT)

LEVEL III: GS-13/15 OFFICER 04 AND ABOVE
ADD: MANAGEMENT OF DEFENSE ACQUISITION CONTRACTS (EXECUTIVE)
OR CONTRACT ADMINISTRATION (EXECUTIVE) (MANDATORY WITHIN
ONE YEAR OF RECEIPT OF WARRANT)

PURCHASING SERIES (GS 1105 AND COMPARABLE MILITARY)

LEVEL I: GS 4/6 E 1/7
ADD: DEFENSE SMALL PURCHASE (ADVANCED) (MANDATORY WITHIN
ONE YEAR OF RECEIPT OF WARRANT)

DELETE: DEFENSE CONTRACT ADMINISTRATION OR MANAGEMENT OF
DEFENSE ACQUISITION CONTRACTS (BASIC)

LEVEL II: GS 7/8 E 6/9
ADD: DEFENSE SMALL PURCHASE (ADVANCED) (MANDATORY WITHIN
ONE YEAR OF RECEIPT OF WARRANT)

DELETE: MANAGEMENT OF DEFENSE ACQUISITION CONTRACTS (ADVANCED)
OR ADVANCED CONTRACT ADMINISTRATION

PROCUREMENT CLERK/ASSISTANT SERIES

LEVEL II: PROCUREMENT ASSISTANT GS 6/7 E 6/9
DELETE: DEFENSE CONTRACT ADMINISTRATION OR MANAGEMENT OF DEFENSE
ACQUISITION CONTRACTS (BASIC)

IT IS FURTHER RECOMMENDED THAT DOD DIRECTIVE 5000.48 BE AMENDED TO INCORPORATE BASIC INFORMATION CONCERNING THE COURSES UNDER THE PROPONENCY OF THE DC/ACMB AND THE SPONSORING SCHOOLS. AN EXAMPLE ENCLOSURE IS AS FOLLOWS:

U.S. ARMY LOGISTICS MANAGEMENT CENTER

THE U.S. ARMY LOGISTICS MANAGEMENT CENTER (ALMC), SCHOOL OF ACQUISITION MANAGEMENT IS LOCATED AT FORT LEE, VIRGINIA. ALMC PROVIDES COURSES IN THE RESIDENT, ONSITE, ACCREDITED OFF CAMPUS INSTRUCTION, CONTRACTOR, SATELLITE EDUCATION NETWORK, LEARNING RESOURCE CENTER AND CORRESPONDENCE MODES OF INSTRUCTION. ADMINISTRATIVE INFORMATION MAY BE OBTAINED FROM THE ALMC COURSE CATALOG PUBLISHED ANNUALLY, BY TELEPHONE (AV 687-4220, COMMERCIAL (804)734-4220), OR BY WRITING TO COMMANDANT, ALMC, ATTN: AMXMC-A-R, FORT LEE, VIRGINIA 23801-6041. ALMC IS THE SPONSORING SCHOOL FOR THE FOLLOWING DOD ACQUISITION CONTRACTING COURSES:

    MANAGEMENT OF DEFENSE ACQUISITION CONTRACTS COURSE (BASIC)
    MANAGEMENT OF DEFENSE ACQUISITION CONTRACTS COURSE (ADVANCED)
    MANAGEMENT OF DEFENSE ACQUISITION CONTRACTS COURSE (EXECUTIVE)
    DEFENSE SMALL PURCHASE COURSE (BASIC)
    DEFENSE SMALL PURCHASE COURSE (ADVANCED)
    COST ACCOUNTING STANDARDS WORKSHOP
    DEFENSE CONTRACTING FOR INFORMATION RESOURCES COURSE

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-8000

ACQUISITION AND
LOGISTICS

(P/CPA)

MAR 16 1987

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
                DIRECTORS OF THE DEFENSE AGENCIES
                COMMANDANT, DEFENSE SYSTEMS MANAGEMENT COLLEGE

SUBJECT: Acquisition Enhancement (ACE) Program

The ACE Program Study Report of December 1985 resulted in the publication of two DoD Directives, 5000.23 and 5000.48. The follow-on study report on the procurement training base, ACE II of December 1986, has been distributed to your staffs. The primary thrust of the report is that we need a permanent infrastructure--a Defense University of Acquisition Management--for the cohesive direction required to further educate and train the acquisition work force. The study's recommendations are far-reaching and will have to be staffed. In the meantime, there are actions that can be taken immediately to attack some of the problems.

To pursue some of the ACE II Report recommendations, I ask the Commandant, DSMC, to serve as my action agent, with support of the Services and DoD agencies, to accomplish the following tasks as quickly as possible:

a. Establish a Curriculum Advisory Council as recommended by the ACE II Report.

b. Task learning centers to develop competency based curricula and courses as recommended by the ACE II Report and in consultation with the responsible functional groups (e.g., Defense Contract/Acquisition Career Management Board).

c. Initiate actions to increase student output of selected courses.

d. Initiate actions to streamline mandatory training waiver procedures.

e. Initiate actions to formalize per diem and travel funding as recommended by the ACE II Report.

f. Develop and promulgate course equivalency procedures and standards.

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The Commandant, DSMC, is to complete these near-term objectives expeditiously. I ask that each Service and the Defense Logistics Agency identify to the Commandant, DSMC, within 15 days the office that will serve as its point of contact for providing support and assistance to make these actions become a reality.

Robert B. Costello
Assistant Secretary of Defense
(Acquisition & Logistics)

APPENDIX F.

Appendix F contains the Contract Management competencies and tasks developed by the Federal Acquisition Institute.

Also included is a matrix showing the relationship of NCMA academic prerequisites to the Contract Management competencies. These competencies and tasks are developed further in the FAI's Training Blueprints, but have not been reproduced here simply because they are too voluminous.

CONTRACT MANAGEMENT

Competencies	Tasks
1 Ability to advise and assist requiring activities in developing and maintaining program plans, budgets, and schedules to reflect procurement lead times, market conditions (e.g., vendor delivery terms), and procurement strategies.	*1 Advise and assist requiring activities in developing and maintaining program plans, budgets, and schedules to reflect procurement lead times, market conditions, and procurement strategies.*
2 Ability to develop, maintain, and update acquisition plans.	*2 Develop (with representatives of the requiring activities), maintain, and update acquisition plans.*
3 Ability to advise and assist requiring activities in formulating purchase requests to yield the best market response in terms of competition, quality, timeliness, price, and mission needs.	*3 Determine that purchase requests from the requiring activities are sufficient for the procurement.* *4 Review technical requirements, statements of work, or specifications submitted by the requiring activity.* *5 Resolve requests to purchase personal services; determine the need for and request wage rates and determinations from the Department of Labor.*
4 Skill in advising and assisting requiring activities in formulating technical evaluation criteria; skill in preparing source selection plans.	*6 Review technical evaluation criteria.* *7 Prepare source selection plans.*
5 Ability to verify that sufficient funds are available prior to execution of a contract, contract modification, or supplemental agreement or ordering against an existing contract, etc.	*8 Determine the timing and source of funds for the procurement.*
6 Ability to identify and establish sources of supplies or services and conduct market research.	*9 Screen mandatory sources of supply (e.g., QPLs, FSS, ADP/IT Schedules, Handicapped and Prison Industries); develop source lists (e.g., solicitation mailing lists).* *10 Conduct market research.*
7 Skill in determining whether other than full and open competition is justified, given the nature of the requirement, market conditions, and procedural constraints.	*11 Determine whether other than full and open competition is justified.* *12 Prepare justifications for other than full and open competition, where required.* *13 Process unsolicited proposals.*
8 Skill in applying the procedures for small business and labor surplus set-asides (including class set-asides) and skill in procuring supplies and services through the 8(a) program.	*14 Determine whether the procurement will be a small business or labor surplus set-aside.* *15 Determine if offerors are qualified for set-asides.*

CONTRACT MANAGEMENT

Competencies

9 Ability to determine the most appropriate method of procurement, given the nature of the requirement and market conditions (i.e., small purchase procedures, sealed bidding, competitive negotiations, or two-step sealed bidding).

10 Ability to select the most appropriate type of contract or agreement, given the nature of the requirement and market conditions.

11 Skill in determining the necessity for contractor financing provisions (e.g., progress payments, advance payments, etc.).

12 Skill in preparing solicitation documents.

13 Skill in publicizing proposed procurements.

14 Skill in evaluating and responding to pre-award inquiries concerning solicitations, bids, and proposals.

15 Skill in determining the necessity for and conducting prebid/preproposal conferences.

16 Skill in amending solicitations, extending the solicitation period, and cancelling solicitations.

Tasks

16 Procure supplies or services through 8(a) procedures.

17 Determine and document the method of procurement.

18 Analyze purchase vs. lease alternatives.

19 Select and, where required, justify type of contract.

20 Determine and justify the necessity for contractor financing arrangements (i.e., progress payments, advance payments, loan guarantees, and long-lead funding).

21 Establish opening/closing dates.

22 Determine mandatory and optional provisions and contract clauses to include or reference in the solicitation.

23 Determine the need and develop special provisions and contract clauses for the solicitation.

24 Complete and issue RFQs, IFBs, and RFPs.

25 Synopsize proposed procurements.

26 Document reasons for not synopsizing proposed procurements.

27 Document reasons for reducing the required solicitation period.

28 Evaluate and respond to inquiries concerning solicitations.

29 Prepare and conduct conferences to clarify solicitations (prebid/preproposal conferences).

30 Prepare or issue amendments to solicitations.

31 Determine and justify necessity of time extensions for submission of bids or proposals.

CONTRACT MANAGEMENT

Competencies

Tasks

17 Skill in evaluating bids, including such aspects as disposing of late bids, determining responsiveness, and determining the lowest total price bid.

18 Ability to identify and resolve mistakes in offers.

19 Skill in determining the responsibility of proposed offerors.

20 Skill in evaluating proposals; ability to identify and request assistance in proposal evaluation from appropriate Government sources (e.g., technical, legal, or field pricing support) and analyze their recommendations; ability to obtain other data necessary for proposal evaluation.

32 Prepare cancellations of solicitations before or after opening; if necessary, prepare determinations for cancellation.

33 Receive and control bids.

34 Open and read bids.

35 Request time extensions from contractors of bid expiration dates

36 Determine the allowability of late bids (and also proposals).

37 Dispose of late bids (and also proposals).

38 Prepare abstracts of bids.

39 Determine the lowest total price bid and whether the lowest price is fair and reasonable.

40 Determine responsiveness of lowest bidders.

41 Identify suspected mistakes.

42 Request verification of offers, calling attention to suspected mistakes.

43 Determine allowability of mistakes in offers.

44 Process mistakes in offers.

45 Request and evaluate preaward surveys.

46 Review the list of debarred, suspended, and ineligible contractors.

47 Determine and document responsibility of proposed contractors (including Certificates of Competency).

48 Open and record proposals.

49 Review proposals to identify terms and conditions requiring discussion.

50 Provide guidance to technical evaluators for review of technical proposals.

51 Analyze technical evaluation reviews or memoranda.

52 Determine the necessity for and obtain certificates of current cost or pricing data.

CONTRACT MANAGEMENT

Competencies

21 Skill in analyzing market conditions and pricing data to develop and support the Government's prenegotiation position on price.

22 Skill in analyzing proposed elements of cost to develop cost and profit prenegotiation positions.based on data from the offerors, in-house estimates, technical evaluations, and audit reports.

23 Skill in factfinding with offerors.

24 Ability to establish the competitive range.

25 Skill in developing negotiation strategies and tactics.

26 Skill at conducting negotiation conferences with offeror's representatives.

27 Ability to develop and recommend selection for award.

28 Ability to prepare and definitize letter contracts.

Tasks

53 *Determine need for, request, and review audit reports; resolve questions on audits with auditors.*

54 *Analyze price proposals.*

55 *Analyze proposed elements of cost to develop prenegotiation positions (ranges) on major elements of cost.*

56 *Conduct/participate in factfinding sessions with representatives of proposed offerors.*

57 *Establish the competitive range.*

58 *Develop negotiation objectives, strategies, and tactics; document in prenegotiation memoranda.*

59 *Conduct prenegotiation meetings with Government personnel.*

60 *Conduct negotiation sessions with offerors in competitive range.*

61 *Conduct negotiation sessions in sole source procurements.*

62 *Conduct negotiation sessions for postaward agreements.*

63 *Request best and final offers.*

64 *Make or recommend the final source selection decision or reject all offers.*

65 *Prepare price negotiation memoranda (including a determination of the fairness and reasonableness of the proposed price).*

66 *Determine and document the necessity of a letter contract.*

67 *Prepare letter contracts.*

68 *Definitize letter contracts.*

CONTRACT MANAGEMENT

Competencies	Tasks
29 Ability to apply procedures for awarding contracts and providing notice of awards.	69 Prepare and review contracts.
	70 Obtain approvals for awarding of contract.
	71 Execute contract and notify successful offeror(s).
	72 Notify unsuccessful offerors.
	73 Issue notices of awards of contracts.
	74 Synopsize awards.
	75 Document reasons for not synopsizing awards.
30 Ability to debrief unsuccessful offerors.	76 Debrief unsuccessful offerors.
31 Skill in developing the Government's position on protests before or after award.	77 Evaluate protests and prepare administrative reports (findings and recommendations) on protests before or after award.
	78 Notify GAO of intent to proceed with procurement or award in emergency situations.
32 Ability to provide postaward orientations to contractors.	79 Determine necessity for, plan, and conduct postaward orientation conferences.
	80 Provide continuing advice to contractors on terms and conditions of the contract.
33 Skill in developing contract administration plans and instructing technical representatives and functional specialists (e.g., quality assurance personnel) on their roles, authority, responsibilities, and limits.	81 Inform contractors of the names, roles, responsibilities, and limits of technical representatives.
	82 Develop contract administration plans and milestones; advise technical representatives of their roles, responsibilities, and limits.
	83 Review and evaluate reports from representatives of the contracting officer.
	84 Monitor and maintain control of contracting officer representatives.
	85 Communicate with legal, quality assurance, financial, supply management, property management, the requiring activity, and other support staff.
34 Skill in issuing orders against existing contracts/agreements.	86 Issue, negotiate, and definitize orders against basic ordering agreements.
	87 Issue orders against contracts.

CONTRACT MANAGEMENT

Competencies

35 Skill in modifying contracts through administrative modifications, change orders, supplemental agreements, or exercising options.

36 Ability to determine whether the contractor is progressing in accordance with the contract schedule and complying with other contract clauses; knowledge of inspection/acceptance procedures, requirements, and practices.

37 Ability to determine whether delays are excusable and grant performance time extensions for excusable delays.

38 Skill in determining and issuing stop or resume work orders.

39 Ability to apply techniques and instruments for dealing with the contractor's failure to perform (e.g., cure notices, show cause notices, refusal to accept deliveries, assessment of liquidated damages, negotiation of consideration for delinquent deliveries or items not meeting specifications).

Tasks

88 *Review options and determine whether to exercise them; prepare determinations and findings or justifications for exercise of options.*

89 *Coordinate with requiring activities on statement of work or specifications for changes or modifications.*

90 *Evaluate requests/proposals for changes in contracts or subcontracts.*

91 *Negotiate and issues changes or modifications. to contracts.*

92 *Issue administrative (no-cost) changes.*

93 *Prepare or process and execute novation and change of name agreements.*

94 *Analyze and negotiate contractors' value engineering change and engineering change proposals.*

95 *Evaluate contractors' progress towards meeting delivery and performance requirements.*

96 *Prepare contract status reports.*

97 *Review and obtain corrections to inspection and acceptance reports.*

98 *Identify breaches of contract (i.e., failure to comply with contract provisions).*

99 *Determine whether delays are excusable and grant performance time extensions for excusable delays.*

100 *Determine need, prepare, and issue stop or resume work orders.*

101 *Notify contractors of delinquencies or quality deficiencies.*

102 *Determine and assess liquidated damages.*

103 *Negotiate considerations for delinquent deliveries or items not meeting specifications.*

104 *Determine need, prepare, and issue cure notices.*

105 *Evaluate adequacy of contractor's responses to cure notices.*

CONTRACT MANAGEMENT

Competencies	Tasks
	106 Determine, prepare, and issue show cause notices.
	107 Identify and pursue available remedies in warranty, guarantee, or latent defect cases.
40 Skill in terminating contracts for the convenience of the Government or for default.	108 Determine need to terminate contracts for convenience.
	109 Issue convenience termination notices and take measures to protect the Government's interests.
	110 Negotiate and execute contractual documents for settlement of partial and complete contract terminations for convenience.
	111 Negotiate, review, and approve no-cost cancellations of contracts.
	112 Determine need to terminate contracts for default.
	113 Negotiate settlement of contract terminations for default.
	114 Issue or distribute default termination notices and take measures to protect the Government's interests and mitigate damages (including recovery of reprocurement costs).
41 Ability to manage payments to contractors (e.g., requests for progress payments, the processing of contractor invoices, release of claims, assignment of payments, adjusting contract fund requirements, the witholding and set-off of payments).	115 Review limitation of cost or funds clause.
	116 Evaluate or adjust contract funds requirements.
	117 Release excess funds under limitation of costs clauses.
	118 Review/approve contractors' invoices and vouchers for payment.
	119 Obtain corrections of improperly prepared invoices or vouchers.
	120 Monitor the processing of contractors' invoices and vouchers to expedite payment under the Prompt Payment Act.
	121 Direct the suspension or disapproval of unallowable costs.
	122 Review/approve contractor's requests for assignment of contract payments.
	123 Review/approve or disapprove withholding of payments and/or retainages.
	124 Determine and issue demand letters for collection of contractors' indebtedness.

CONTRACT MANAGEMENT

Competencies	Tasks
	125 Review and approve or disapprove the contractors' requests for payments under the progess payments clause.
	126 Determine whether to suspend or reduce progress payments or initiate an alternate liquidation rate.
	127 Review and approve or disapprove requests for cost sharing or matching payments.
42 Ability to implement contract closeout procedures.	*128 Perform contract closeouts.*
43 Knowledge of the procedures for reviewing and accepting the contractor's accounting and cost estimating systems; ability to monitor the contractor's financial condition.	*129 Determine adequacy of contractor accounting systems and take measures to protect the Government's interests when accounting systems are determined to be inadequate.*
	130 Review and negotiate improvements in contractor estimating systems.
	131 Monitor the contractor's financial condition to determine when it jeopardizes contract performance.
44 Ability to obtain and review cost accounting standard disclosure statements, determine whether audits of the statements are necessary, and negotiate cost impact adjustments.	*132 Obtain cost accounting standards disclosure information or statements.*
	133 Review cost accounting standards disclosure statements.
	134 Negotiate price (cost impact) adjustments and execute supplementary agreements under cost accounting standards.
45 Ability to identify and resolve defective pricing actions.	*135 Identify defective pricing cases.*
	136 Demand and negotiate refunds for defective pricing.
46 Knowledge of the process for settling claims and ability to determine the validity of claims and establish the Government's position on the amount of the equitable adjustment; knowledge of the disputes process.	*137 Analyze claims and recommend settlement positions; prepare findings of facts.*
	138 Negotiate claim settlements with contractors.
	139 Issue contracting officer final decisions under disputes clause of contracts.
	140 Prepare and assemble, dispute or claims files for the General Counsel.
	141 Participate in claims, disputes, or protest board or court proceedings.
	142 Obtain contractors' release of claims.

CONTRACT MANAGEMENT

Competencies

Tasks

47 Ability to review and consent to proposed placements of subcontracts, ability to review subcontracting plans.

143 Review and approve subcontracting plans for inclusion in the contract.

144 Evaluate and consent to proposed placements of subcontracts.

48 Ability to review requests and determine the need for Government property, special tooling, and special test equipment.

145 Coordinate with other personnel on property control matters.

146 Evaluate and approve requests for Government furnished property.

147 Evaluate requests for/authorize contractor acquisition or fabrication of special tooling.

148 Determine if contractors' use of Government property conforms with contractual authorizations.

149 Determine rent or use fees for Government property.

150 Assess contractors for losses or damages to Government property.

49 Ability to determine the requirement or desirability of bonds; ability to secure and administer bonds.

151 Determine bonding requirements and include appropriate provisions or clauses in the solicitation.

152 Review bond or bid guarantees for completeness and adequacy; check "List of Acceptable Sureties."

153 Notify bonding agencies of contract status.

154 Negotiate with bonding companies prior to contract termination.

155 Prepare and execute surety takeover agreements.

50 Skill in initiating adverse actions for fraud and other civil or criminal offenses; ability to select evidence on performance failings for referral to debarment officials.

156 Refer evidence on performance failings to debarment officials.

157 Refer evidence of fraud and other civil or criminal offenses to the Inspector General and other responsible parties.

51 General knowledge of the Procurement Mission, System, Process, Organization, Management, Statutory and Regulatory Foundation, Roles and Responsibilities, and Standards of Conduct.

158 General knowledge of the Procurement Mission, System, Process, Organization, Management, Statutory and Regulatory Foundation, Roles and Responsibilities, and Standards of Conduct.

A CONTRACT MANAGER'S GUIDE TO TRAINING BLUEPRINTS

Purpose.

The goal of procurement training is to staff Contract Specialist (GS-1102) positions with employees who are competent to perform the most commonly assigned and critical Contract Management tasks. The Competencies and Training Blueprints are meant to help trainers accomplish that goal.

Part 1 lists 51 Competencies and more than 150 tasks that Federal Contract specialists ought to master before or shortly after promotion to the full performance level. Part 2 conveys the Training Blueprints. The Blueprints are intended to help instructors write lesson plans and instructional materials for mastering the Competencies and tasks.

Training Blueprints are not substitutes for textbooks. They are not classification guides and have no relationship to the grade levels of trainees (some trainees will need instruction in a Competency at the GS-5 level, while others may not need such instruction until the GS-11 level).

Limits

The Training Blueprints cover only the core skills. On an as-needed basis, some Contract Specialists will need further instruction in such areas as small purchases, major systems, construction, and ADPE. We are presently developing Blueprints for such specialized areas. However, those Blueprints will serve as supplements to, not substitutes for, the Training Blueprints in Part 2.

For Whom the Blueprints Toll.

Training Blueprints are written for all persons who design and deliver procurement training in any form. This includes staff instructors at Federal procurement training facilities, college and university instructors of academic-level procurement courses, and procurement training contractors.

The Blueprints also can be used directly by first-line supervisors in planning on-the-job training. Many of the TPOs in the Blueprints can best be accomplished by a blend of on-the-job and classroom training. For this purpose, we anticipate using the Blueprints to design on-the-job training aids for first line supervisors.

Anatomy of a Blueprint

Training Blueprints can be likened to road maps. Each Training Blueprint covers a distinct and exclusive part of the procurement process--as defined by its Competency and tasks. Each Blueprint has a destination--the **Terminal Performance Objective (TPO)**, which identifies the **Action** that students should be able to perform at the end of training, the **Conditions** under which the student can be expected to perform, and a **Standard** for assessing performance. Each blueprint maps out a step by step path for progressing towards the TPO--**Enabling Objectives** (along with secondary **Standards** for determining whether the student is ready to advance from one enabling objective to the next). Each blueprint lists the **Skills and Knowlege** required to reach the TPO and includes a Criterion Test Design for testing whether the student has in fact accomplished the TPO.

We have dissected the Blueprint for Competency 25 (Figures 1-4). In the course of our dissection, we have cut some of the wording of the actual Blueprint to more clearly and concisely reveal the essential features of its innards. Please review Figures 1-4 before opening Part 2.

III. Development of Training Blueprints for Selected Tasks (1986)

In the Fall of 1985, the Administrator of General Services directed the FAI to perform a Governmentwide Study of Procurement Training and produce a procurement curriculum for delivery by the GSA Training Center.

To support this effort, an interagency Advisory Committee was established and met in early 1986 to approve a plan for developing the curriculum.

The plan called for the development of a complete set of blueprints for training the Competencies and tasks identified in the Curriculum Design Outlines. To develop the blueprints, the FAI assembled a full-time Working Group of procurement and instructional design specialists, along with 16 "consultants" from the Air Force, Army, DLA, Navy, Interior, Agriculture, HHS, VA, Energy, Treasury, and NASA.

The Working Group members performed the following steps to prepare the blueprints.

- They researched and prepared a file on each Competency, containing the related FAR provisions, training materials, job aids, manuals, and handbooks contributed by various agencies.

- They individually prepared a set of blueprints, working one-on-one with an instructional design specialist from the FAI or the GSA Training Center.

- The full Working Group reviewed and scrubbed the draft blueprints, with assistance from the interagency cadre of consultants and instructional design specialists.

- Copies of draft blueprints were circulated to the Advisory Committee of Procurement Executives for comment.

When all the training blueprints are approved by the Advisory Committee, they will be organized into instructional modules. The overall description of each instructional module will identify (1) competencies and tasks covered in the module, (2) the related blueprints, (3) recommended duration, in classroom and job site hours, of the module, and (4) alternative methods of training delivery.

In the course of preparing the blueprints, the Working Group also greatly refined the listing of Comptencies and tasks. In part, these refinements were editorial or reflected changes in jargon. However, many of the refinements resulted from the dramatic revolutions in the statutory and regulatory foundation of the procurement system, as embodied in such laws as the Competition in Contracting Act. Nonetheless, it is possible to trace the origin of tasks on the final list to the 1979 task inventory.

RELATIONSHIP OF NCMA ACADEMIC PREREQUISITES TO THE CONTRACT MANAGEMENT COMPETENCIES

n the table below, the left-hand column lists academic prerequisites (referred to as "Basic Tools and Functions") from the Education and Training Program Structure (ETPS) approved as part of the professional Contract Management Body of Knowledge by the Board of Directors of the National Contract Management Association (NCMA) at its meeting of February 13, 1985. The right hand column lists the reference numbers of related Competencies and Training Blueprints from the Federal Acquisition Institute's final draft of Contract Management Competencies, Tasks, and Training Blueprints. Each Training Blueprint has a field for "Academic Prerequisites", and this chart would be used as the basis for completing that field.

On pages 2-6, the Competencies are spelled out in the left-hand column and the corresponding NCMA academic prerequisites are listed in the right-hand column.

NCMA ACADEMIC PREREQUISITES	CONTRACT MANAGEMENT COMPETENCIES AND TRAINING BLUEPRINTS
ECONOMICS Macroeconomic concepts Microeconomic concepts Industrial organization Labor economics	COMPETENCIES: 1, 3, 6, 7, 9, 10, 21, 22, 25, 26 RELATED BLUEPRINTS: 1, 3.4, 6.2, 7.1, 9.2, 10, 21, 22, 25, 26
ACCOUNTING Cost accounting basics Cost accounting standards	COMPETENCIES: 10, 20, 22, 41, 43, 44, 45 RELATED BLUEPRINTS: 10, 20.4, 22, 41.3, 43, 44, 45
FINANCE Elements of business finance Financial reports Break-even analysis Make or buy analysis	COMPETENCIES: 1, 9, 11, 19, 22, 25, 26, 36, 41, 48, 49 RELATED BLUEPRINTS: 1, 9.2, 11, 19, 22, 25, 26, 36, 41.6, 48.1, 49
MATERIALS AND OPERATIONS Elements of production Elements of industrial marketing Elements of logistics Elements of inventory management Surplus and excess property Materials management	COMPETENCIES: 1, 3, 4, 6, 7, 8, 9, 10, 13, 16, 19, 20, 22, 36, 37, 38, 47, 48 RELATED BLUEPRINTS: 1, 3.1, 3.2, 3.3, 4.1, 4.2, 6.2, 7.1, 8.1, 9.1, 9.2, 10, 13, 16, 19, 20.2, 20.3, 22, 36, 37, 38, 47.2, 48.1
COMMERCIAL LAW Elements of a contract Terms and conditions Agency Warranties Unconscionability Breaches and remedies	COMPETENCIES: 1, 3, 7, 10, 12, 17, 18, 19, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 46, 48, 50 RELATED BLUEPRINTS: 1, 3.1, 7.1, 10, 12, 17.5, 18, 19, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41.4, 42, 46, 48.2, 50

CONTRACT MANAGEMENT

Competencies	NCMA Academic Prerequisites
1 Ability to advise and assist requiring activities in developing and maintaining program plans, budgets, and schedules to reflect procurement lead times, market conditions (e.g., vendor delivery terms), and procurement strategies.	1&2 Economics (especially microeconomic concepts and industrial organization), Finance (especially break-even analysis and make or buy analysis), Materials and Operations (especially elements of production, elements of industrial marketing, elements of logistics, and materials management), and Commercial Law (especially elements of a contract and agency).
2 Ability to develop, maintain, and update acquisition plans.	
3 Ability to advise and assist requiring activities in formulating purchase requests to yield the best market response in terms of competition, quality, timeliness, price, and mission needs.	3 Economics (especially industrial organization and labor economics for wage rate determinations), Materials and Operations (especially elements of production, elements of industrial marketing, inventory management, and materials management), and Commercial Law (especially elements of a contract).
4 Skill in advising and assisting requiring activities in formulating technical evaluation criteria; skill in preparing source selection plans.	4 Materials and Operations (especially elements of production).
5 Ability to verify that sufficient funds are available prior to execution of a contract, contract modification, or supplemental agreement or ordering against an existing contract, etc.	5
6 Ability to identify and establish sources of supplies or services and conduct market research.	6 Economics (especially microeconomic concepts and industrial organization) and Materials and Operations (especially elements of production and elements of industrial marketing).
7 Skill in determining whether other than full and open competition is justified, given the nature of the requirement, market conditions, and procedural constraints.	7 Economics (especially microeconomic concepts and industrial organization) and Materials and Operations (especially elements of industrial marketing).
8 Skill in applying the procedures for small business and labor surplus set-asides (including class set-asides) and skill in procuring supplies and services through the 8(a) program.	8
9 Ability to determine the most appropriate method of procurement, given the nature of the requirement and market conditions (i.e., small purchase procedures, sealed bidding, competitive negotiations, or two-step sealed bidding).	9 Economics (especially industrial organization), Materials and Operations (especially elements of production and elements of industrial marketing) and Finance (especially break even analysis, make or buy analysis, and elements of business finance—especially with respect to lease vs. buy decisionmaking).

CONTRACT MANAGEMENT

Competencies	NCMA Academic Prerequisites
10 Ability to select the most appropriate type of contract or agreement, given the nature of the requirement and market conditions.	10 Economics (especially macroeconomic concepts, microeconomic concepts, industrial organization, and labor economics), Accounting (especially cost accounting basics), Materials and Operations (especially elements of production), and Commercial Law (especially breaches and remedies).
11 Skill in determining the necessity for contractor financing provisions (e.g., progress payments, advance payments, etc.).	11 Finance (especially elements of business finance and financial reports).
12 Skill in preparing solicitation documents.	12 Commercial Law (especially elements of a contract and terms and conditions)
13 Skill in publicizing proposed procurements.	13 Materials and Operations (especially elements of industrial marketing).
14 Skill in evaluating and responding to pre-award inquiries concerning solicitations, bids, and proposals.	
15 Skill in determining the necessity for and conducting prebid/preproposal conferences.	
16 Skill in amending solicitations, extending the solicitation period, and cancelling solicitations.	16 Commercial Law (especially elements of a contract).
17 Skill in evaluating bids, including such aspects as disposing of late bids, determining responsiveness, and determining the lowest total price bid.	17 Commercial Law (especially elements of a contract and terms and conditions).
18 Ability to identify and resolve mistakes in offers.	18 Commercial Law (especially elements of a contract, agency, and unconsionability.)
19 Skill in determining the responsibility of proposed offerors.	19 Finance (especially elements of business finance and financial reports), Materials and Operations (especially elements of production, elements of logistics, and materials management), and Commercial Law (especially agency).
20 Skill in evaluating proposals; ability to identify and request assistance in proposal evaluation from appropriate Government sources (e.g., technical, legal, or field pricing support) and analyze their recommendations; ability to obtain other data necessary for proposal evaluation.	20 Accounting (especially cost accounting basics) and Materials and Operations (especially elements of production).

CONTRACT MANAGEMENT

Competencies	NCMA Academic Prerequisites
21 Skill in analyzing market conditions and pricing data to develop and support the Government's prenegotiation position on price.	21 Economics (especially microeconomic concepts and industrial organization).
22 Skill in analyzing proposed elements of cost to develop cost and profit prenegotiation positions, based on data from the offerors, in-house estimates, technical evaluations, and audit reports.	22 Economics (especially microeconomic concepts, industrial organization, and labor economics), Accounting (especially cost accounting basics), Finance (especially break-even analysis), and Materials and Operations (especially elements of production, elements of logistics, elements of inventory management, surplus and excess property, and materials management).
23 Skill in factfinding with offerors.	
24 Ability to establish the competitive range.	
25 Skill in developing negotiation strategies and tactics.	25 & 26 Economics (especially microeconomic concepts and industrial organization), Finance (especially elements of business finance, financial reports, and break-even analysis), and Commercial Law (especially elements of a contract, terms and conditions, agency, warranties, and unconsionability).
26 Skill at conducting negotiation conferences with offeror's representatives.	
27 Ability to develop and recommend selection for award.	27 Commercial Law (especially elements of a contract, agency, and warranties).
28 Ability to prepare and definitize letter contracts.	28 Commercial Law (especially elements of a contract, agency, and breaches and remedies).
29 Ability to apply procedures for awarding contracts and providing notice of awards.	29 Commercial Law (especially elements of a contract and agency).
30 Ability to debrief unsuccessful offerors.	30
31 Skill in developing the Government's position on protests before or after award.	31 Commercial Law
32 Ability to provide postaward orientations to contractors.	32 & 33 Commercial Law (especially elements of a contract, terms and conditions, agency, and breaches and remedies).
33 Skill in developing contract administration plans and instructing technical representatives and functional specialists (e.g., quality assurance personnel) on their roles, authority, responsibilities, and limits.	

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CONTRACT MANAGEMENT

Competencies

NCMA Academic Prerequisites

34 Skill in issuing orders against existing contracts/agreements.

35 Skill in modifying contracts through administrative modifications, change orders, supplemental agreements, or exercising options.

34 & 35 Commercial Law (especially elements of a contract, terms and conditions, and agency).

36 Ability to determine whether the contractor is progressing in accordance with the contract schedule and complying with other contract clauses; knowledge of inspection/acceptance procedures, requirements, and practices.

36 Finance (especially financial reports), Materials and Operations (especially elements of production, elements of logistics, elements of inventory management, surplus and excess property, and materials management) and Commercial Law (especially terms and conditions, agency, warranties, and breaches and remedies).

37 Ability to determine whether delays are excusable and grant performance time extensions for excusable delays.

37 Materials and Operations (especially elements of production) and Commercial Law (especially terms and conditions and unconscionability).

38 Skill in determining and issuing stop or resume work orders.

38 Materials and Operations (especially elements of production) and Commercial Law (especially terms and conditions, unconscionability, and breaches and remedies).

39 Ability to apply techniques and instruments for dealing with the contractor's failure to perform (e.g., cure notices, show cause notices, refusal to accept deliveries, assessment of liquidated damages, negotiation of consideration for delinquent deliveries or items not meeting specifications).

39 Commercial Law (especially elements of a contract, terms and conditions, warranties, and breaches and remedies).

40 Skill in terminating contracts for the convenience of the Government or for default.

40 Commercial Law (especially breaches and remedies).

41 Ability to manage payments to contractors (e.g., requests for progress payments, the processing of contractor invoices, release of claims, assignment of payments, adjusting contract fund requirements, the withholding and set-off of payments).

41 Accounting (especially cost accounting basics), Finance (especially elements of business finance and financial reports), and Commercial Law (especially agency).

42 Ability to implement contract close out procedures.

42 Commercial Law (especially elements of a contract and terms and conditions).

CONTRACT MANAGEMENT

Competencies

NCMA Academic Prerequisites

Competencies	Prerequisites
43 Knowledge of the procedures for reviewing and accepting the contractor's accounting and cost estimating systems; ability to monitor the contractor's financial condition.	43, 44, & 45 Accounting (cost accounting basics and cost accounting standards).
44 Ability to obtain and review cost accounting standard disclosure statements, determine whether audits of the statements are necessary, and negotiate cost impact adjustments.	
45 Ability to identify and resolve defective pricing actions.	
46 Knowledge of the process for settling claims and ability to determine the validity of claims and establish the Government's position on the amount of the equitable adjustment; knowledge of the disputes process.	46 Commercial Law (especially breaches and remedies).
47 Ability to review and consent to proposed placements of subcontracts, ability to review subcontracting plans.	47 Materials and Operations (especially elements of a contract, terms and conditions, and materials management).
48 Ability to review requests and determine the need for Government property, special tooling, and special test equipment.	48 Finance (especially break-even analysis and make or buy analysis), Materials and Operations (especially elements of inventory management, surplus and excess property, and materials management), and Commercial Law (especially terms and conditions and breaches and remedies).
49 Ability to determine the requirement or desirability of bonds; ability to secure and administer bonds.	49 Finance (especially elements of business finance).
50 Skill in initiating adverse actions for fraud and other civil or criminal offenses; ability to select evidence on performance failings for referral to debarment officials.	50 Commercial Law (especially agency, elements of a contract, unconscionability, and breaches and remedies).
51 General knowledge of the Procurement Mission, System, Process, Organization, Management, Statutory and Regulatory Foundation, Roles and Responsibilities, and Standards of Conduct.	

APPENDIX G.

Appendix G contains several tables which examine the Department of Defense Procurement Training Base.

There are four tables in this Appendix; these tables address the annual DOD procurement training requirements, the backlog and ways to alleviate the backlog.

Is the Training Capacity Sufficient to Manage Annual Requirement or Training Requirement?

(1) Course Title	—Annual Requirement—			—Training Requirement—					
	(2) Annual Requirement	(3) Training Capacity	Capacity sufficient?	Annual Requirement	(3)	(4) Backlog = Requirement	(5) Immediate Training Requirement	Training Capacity	Capacity sufficient?
Advanced Contract Administration	811	725	No	811		607	418	725	No
Advanced Management Course	45	120	Yes	45		307	432	120	No
Advanced Property Administration	54	100	Yes	54		603	66	100	No
Business Management Course	0			0			0		
Contract Administration Course (Basic)	566	100	No	566		5260	928	100	No
Defense Acquisition & Contracting Executive Seminar	308	960	Yes	308		2826	314	960	No
Defense Contracts Management for Technical Personnel	276	2280	Yes	276		1197	173	2280	Yes
Defense Contracts Negotiation Workshop	753	1950	Yes	753		4764	538	1950	No
Defense Cost and Price Analysis	382	1440	Yes	382		1941	233	1440	Yes
Defense Contract Property Management	10	240	Yes	10		111	124	240	No
Defense Small Purchase Course	1130	0	No	1130		763	893	0	Yes
Executive Center Seminars	45			45		307	432		
Executive Brand Table	45	24	No	45		307	432	24	No
Federal Executive Institute Program	15			15		387	162		
Financial Management in Weapon Systems Acquisition	276	144	Yes	276		127	159	144	Yes
Quality & Reliability Four Week Course						253			
Construction Contract Law	1704	930	No	1704		7793	968	930	No
Introduction to Data Processing	10	608	Yes	10		118	118	608	Yes
Industrial Property Administration	10	150	Yes	10		90	100	150	Yes
Managerial Assessment Orientation Seminar	45	24	No	45		387	432	24	No
Management of Defense Acquisition Contracts (Advanced)	811	240	Yes	811		607	618	240	No
Management of Defense Acquisition Contracts (Basic)	981	2820	Yes	981		4727	578	2820	No
Management Development Seminar	288	288	Yes	288		387	432	288	No
Management of Managers Course	45	240	Yes	45		387	432	240	No
Principles of Contract Pricing	382	316	No	382		1941	2331	316	No
Program Management Course	617	540	No	617		63	646	540	No
Provisional Management (or Executive Conference)	45			45		387	432		
Production Management I	38	130	Yes	38		123	161	130	No
Production Management II	288	162	No	288		1611	1979	162	No
Quality Assurance Management I	1611	160	No	1611		1609	1027	160	No
Quality Assurance Management II	46	160	Yes	46		563	60	160	No
	11,895	17,271		11,895		68,469	80,364	17,271	

(1) List of courses which apply to the training requirements of contracting, quality assurance and program management personnel as identified by DoDD 5000.IX and DoDD 5000.21.

(2) The number of new hires per year who will require training.

(3) The total number of students that can be trained in classrooms (resident or on-site) each year. Does not include correspondence rate figures.

(4) The total number of personnel awaiting training.

(5) The total number of personnel in a backlog status plus one year's annual requirement.

* Training capacities unknown. Defense Small Purchase Course has correspondence mode only. Business Management Course discontinued FY87.

Section III, Table 1

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Data as of August 1986   Is the Training Capacity Sufficient to Resolve the Backlog and Annual Requirement in a Reasonable Time?

(1) Course Title	(2) Backlog	(3) Annual Requirement	(4) Training Capacity	Years to Resolve	Sufficient?
Advanced Contract Administration	4007	811	725	5+	No
Advanced Management Course	387	45	120	5+	No
Advanced Property Administration	642	34	100	5+	No
*Business Management Course		0			
Contract Administration Course (Basic)	8060	965	100	5+	No
Defense Acquisition & Contracting Executive Seminar	2626	308	960	5	No
Defense Contracts Management for Technical Personnel	1197	276	1550	1	Yes
Defense Contracts Negotiation Workshop	4704	752	1550	4	No
Defense Cost and Price Analysis	1941	382	1440	2	Yes
Defense Contract Property Negotiation	114	10	240	1	Yes
*Defense Small Purchase Course	7783	1130	0		Yes
*Executive Center Seminars	387	45			
Executive Board Table	387	45	24	5+	No
*Federal Executive Institute Program	127	15			
Financial Management in Weapon System Acquisition	1253	276	144	1	Yes
Quality & Reliability Four Week Course	7792	1704	930	5+	No
Government Contract Law	113	10	408	1	Yes
Introduction to Data Processing	98	45	150	5+	No
Industrial Property Administration	387				
Managerial Acquisition Orientation Seminar	4007	811	2400	2	Yes
Management of Defense Acquisition Contracts (Advanced)	4727	981	2820	2	Yes
Management of Defense Acquisition Contracts (Basic)	387	45	288	2	Yes
Management Development Seminar	387				
Management of Managers Course	1941	382	240	2	Yes
Principles of Contract Pricing	69	45	336	5+	Yes
Program Management Course	387	617	540	5+	No
*Personnel Management for Executive Conference	387	45			
Production Management I	123	38	130	2	Yes
Production Management II	1661	298	162	5+	No
Quality Assurance Management I	1169	1613	160	5+	No
Quality Assurance Management II	562	45	160	5	No

(1) List of courses which apply to the training requirements of contracting, quality assurance and program management personnel as identified by DoDD 5000.XX and DoDD 5000.21.
(2) The number of personnel awaiting training.
(3) The number of new hires each year who will require training.
(4) The total number of personnel that can be trained in classroom (resident or on-site) each year. Does not include correspondence mode figures.

* Training capacities unknown. Defense Small Purchase Course has correspondence mode only. Business Management Course discontinued FY87.

Section III, Table 2

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Data as of August 1986

Backlog and Annual Requirement Distributed Over 1 to 5 Years

(1) Course Title	(2) Required Capacity Per Time Period					(3) Training Capacity
	1 Year	2 Years	3 Years	4 Years	5 Years	
Advanced Contract Administration	603	2015	2167	1813	1612	75
Advanced Management Course	432	239	174	142	122	120
Advanced Property Administration	66	395	285	245	214	100
Business Management Course	*	0	0	0	0	*
Contract Administration Course (Basic)	9225	5096	3719	3011	2518	100
Defense Acquisition & Contracting Executive Seminar	3134	1721	1250	1015	671	840
Defense Contracts Management for Technical Personnel	1073	675	675	575	515	2280
Defense Contracts Negotiation Workshop	5836	3144	2347	1948	1708	1950
Defense Cost and Price Analysis	2333	1353	1023	867	770	1140
Defense Contract Property Disposition	134	67	48	39	33	240
Defense Small Purchase Course	6603	5012	3719	3071	2583	0
Executive Order Seminars	432	239	174	142	122	*
Executive Round Table	432	239	174	142	122	24
Federal Executive Institute Program	142	79	57	47	40	
Financial Management in Weapon Systems Acquisition	1529	903	664	549	457	144
Quality & Reliability Peer Work Course	9496	5600	4135	3652	3262	930
Government Contract Law	118	66	49	40	34	408
Introduction to Data Processing	100	56	40	33	28	150
Industrial Property Administration	432	239	174	142	122	24
Industrial Resources Orientation Seminar	6613	2815	2347	1813	1612	240
Management of Defense Acquisition Contracts (Advanced)	5708	3145	2557	2163	1926	2820
Management of Defense Acquisition Contracts (Basic)	432	239	174	142	122	288
Management Development Seminar	432	239	174	142	122	240
Principles of Contract Pricing	2333	1353	1023	867	770	316
Program Management Course	646	652	640	634	631	540
Personnel Management for Executive Conference	432	239	174	142	122	
Production Management I	131	100	79	69	63	130
Production Management II	1979	1139	858	718	634	162
Quality Assurance Management I	13027	7533	5621	4670	3900	160
Quality Assurance Management II	668	377	233	197	158	160
	80,384	45,160	34,775	29,017	25,593	17,271

(1) List of courses which apply to the training requirements of contracting, quality assurance and program management personnel as identified by DoDD 5000.XX and DoD 5000.21.

(2) The number of personnel who still need to complete training per year to resolve the backlog and accommodate each year's annual requirement.

(3) The total number of personnel that can be trained in classrooms (residence or on-site) each year. Does not include correspondence mode.

* Training capacities unknown. Defense Small Purchase Course has correspondence mode only. Business Management Course discontinued FY87.

Section III, Table 3

Recommended Options to Achieve Balance

(1) Course Title	(2) Annual Requirement	(3) Required Capacity	(4) Current Training Capacity	(5) Options	Remarks
					Recommended
Advanced Contract Administration	811	2147	725	1,2,3,4,6,9	
Advanced Management Corps	45	174	120	2,3,4,6	
Advanced Property Administration	94	285	100	1,2,3,4,5	
Business Management Course	0	0			
Contract Administration Course (Basic)	966	3719	100	1,2,3,4,5,6,7,8,9	
Defense Acquisition & Contracting Executive Seminar	308	1230	960	3,4,9	
Defense Contracts Management for Technical Personnel	752	675	2280		Current Capac. / Exceeds Required Capacity
Defense Contracts Negotiation Workshop	382	2247	1950	1,3,4,6	Current Capacity Exceeds Required Capacity
Defense Cost and Price Analysis	10	1029	1440		Current Capacity Exceeds Required Capacity
Defense Contract Property Disposition	10	48	240		Correspondence Mode Only
Defense Small Purchase Course	1130	3718	0		
Executive Center Seminars	45	174		2,3,4,6	
Executive Aural Table	45	174	24	2,3,4,6	Current Capacity Exceeds Required Capacity
Federal Executive Institute Program	15	57		2,3,4,6	Course Not Yet Developed
Financial Management in Weapon System Acquisition	276	664	144		
Quality & Reliability Four Week Course	1704	4301	920	1,3,4,6,8,9	Current Capacity Exceeds Required Capacity
Government Contract Law	10	69	68		Current Capacity Exceeds Required Capacity
Introduction to Data Processing	10	60	150		
Industrial Property Administration	45	174	24	2,3,4,6	
Management Assessment Orientation Seminar	811	2147	2040		Current Capacity Exceeds Required Capacity
Management of Defense Acquisition Contracts (Advanced)	981	2557	2020		Current Capacity Exceeds Required Capacity
Management of Defense Acquisition Contracts (Basic)	45	174	264		Current Capacity Exceeds Required Capacity
Management Development Seminar	45	174	240		Current Capacity Exceeds Required Capacity
Management of Managers Course	302	1029	336	1,2,3,4,6,9	
Principles of Contract Pricing	617	640	540	3,4	
Program Management Course	45	174		2,3,4,6	
Personnel Management for Executive Conference	38	79	130		Current Capacity Exceeds Required Capacity
Production Management I	298	858	162	1,3,4,6,7,8,9	
Quality Assurance Management I	1618	5421	160	1,3,5,7,8,9	
Quality Assurance Management II	46	233	160	1,3,4	

(1) List of courses which apply to the training requirements of contracting, quality assurance and program management personnel as identified by DOD 5000.XX and DoDI 5000.23.

(2) The total number of new hires per year who will require training.

(3) The number of personnel who will need to complete training per year to resolve the backlog and to accommodate each year's annual requirement over a 3-year period. Does not include correspondence mode figures.

(4) The total number of students that can currently be trained in classrooms (resident or on-site) each year.

(5) Options: #1 Grant waivers. #2 Redistribute the training load to equivalents with excess capacity. #3 Identify equivalent courses outside the training base. #4 Increase current capacity without additional resources. #5 Rely on correspondence mode. #6 Offer additional classes #7 Develop additional correspondence modes. #8 Develop expandable training modes. #9 Use additional contract courses.

* Training capacities unknown. Defense Small Purchase Course has correspondence mode only. Business Management Course discontinued FY87.

Section III, Table 4

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DEPARTMENT OF THE ARMY
UNITED STATES ARMY LOGISTICS MANAGEMENT CENTER
FORT LEE, VIRGINIA 23801-~~2540~~ 6048

REPLY TO
ATTENTION OF

AMXMC-ACM-PM

FEB 27 1987

SUBJECT: Request for Training

Commandant
United States Coast Guard
ATTN: G-FPM/S-2
Washington, D. C. 20593

1. Reference letter, G-FPM/S-2, U.S. Coast Guard, 6 Feb 87, SAB.

2. In response to referenced letter, the Coast Guard has had
difficulty obtaining sufficient quotas for ALMC courses because
the Coast Guard is not a Department of Defense (DOD) activity.
DOD activities have priority for DOD courses and the Management
of Defense Acquisition Contracts Course (Basic) (MDACC (Basic))
and MDACC (Advanced) are in great demand. In addition, non-DOD
activities are charged a tuition of $40 per day per student.

3. The *Army Logistics Management Center* (ALMC) FY 88 schedule
has been established and ALMC resources are fully committed to
supporting DOD activities. Therefore, ALMC is unable to directly
support your request for onsite courses. However, MDACC (Basic)
is currently available by contractor and MDACC (Advanced) will be
available by contractor in FY 88.

    a. MDACC (Basic) is available by contract from:

       Navy Consolidated Civilian Personnel Office
       Employee Development Department
       Code 62
       Crystal Mall 2
       Crystal City, VA 02936

       Point of Contact: Mr. Paul Butcher
                   Commercial (703) 692-0892/0893
                   AUTOVON 222-0892/0893

    b. Inquiries concerning the contract for MDACC (Advanced)
currently being negotiated may be addressed to:

AMXMC-ACM-PM
SUBJECT: Request for Training

Commandant
U.S. Army Logistics Management Center
ATTN: AMXMC-ACM-PM
Fort Lee, VA 23801-6048

Point of Contact: Mr. Kevin Love
Commercial (804) 734-1669
AUTOVON 687-1669

4. There are many advantages of having the MDACC (Basic) and
MDACC (Advanced) delivered by contract. Although the Coast Guard
must fund each offering delivered under the contract, no ALMC
tuition will be assessed, resulting in significantly lower total
cost to the Coast Guard. In addition, the contractor is required
to deliver either MDACC (Basic) or MDACC (Advanced) to any
location in the Continental U.S. within 45 days of the date of
the delivery order. Each contractor offering uses the same
course materials, examinations and graduation certificates as
offerings presented by the ALMC faculty.

5. If there are any further quesitons, the ALMC Point of Contact
is CDR R. D. Pingel, Chairman, Procurement Management Department,
commercial (804) 734-1246 or AUTOVON 687-1246.

6. ALMC - Providing Soldiers the Decisive Edge.

FOR THE COMMANDANT:

PAUL R. HIGGINS
Colonel, QM
Dean, School of
    Acquisition Management

OFFICE OF ACQUISITION TRAINING SYSTEM IMPLEMENTATION PLAN

ESTABLISH A COMPREHENSIVE ACQUISITION TRAINING SYSTEM FOR THE OFFICE

Goals and Milestones.

1. **Purpose.** Establish an Office of Acquisition training system which can provide a list of training each billet needs, a list of training each person has had, and how the required training will be accomplished.

2. **Background.** An in-house study, a consultant's study, and a GAO review all found acquisition training inadequate. We must also establish base line training requirements for the new Office of Acquisition.

3. **Action Plan Outline:**
   a. Identify training needs at all levels.
   b. Identify applicable training resources.
   c. Identify current levels of skills.
   d. Identify resources required for implementation.
   e. Prepare training resources.
   f. Construct training resource database.
   g. Execute FY87 training plan.
   h. Prepare FY88 training plan.

MILESTONES	TARGET COMPLETION DATE
A. Revise and Update FY87 Training Plan.	15 Jan 87
B. Establish Training Requirements by Billet.	1 Jul 87
C. Create Training Data Base.	15 Jan 87
D. Submit FY-88 Training Plan	12 Jun 87
E. Establish Acquisition Training System	1 Sep 87

MILESTONE	TARGET COMPLETION DATE

A. ` Revise and Update FY87 Training Plan.

    1.   Solicit division officer and project manager input for   15 Dec
          training needed in FY87 using the existing FY87
          training plan as a base and a list of training available.

    2.   Publish revised FY87 training plan.

          1) Publish a rough draft of revised FY87 training   30 Dec
              plan.
          2) Get program manager and division officer   15 Jan
              feedback.
          3) Revise FY87 training plan.   15 Jan

MILESTONE	TARGET COMPLETION DATE

B. Establish Training Requirements By Billet.

    1. Using training needs developed in the revised FY87   15 Jan
        training plan (Milestone A), publish a proposed
        list of required training by job type
        (e.g. contracting officer, project manager)
        including:

        a. Basic courses required prior to beginning job
            (pipeline).
        b. Core courses required for job.
            1) Job execution requirements.
            2) Supervisory requirements.
        c. Substitute training for required courses.
        d. Optional courses for each billet (nice to have,
            but not required).

        b. Collect previous training experience for each job   15 Jan
            type.

    2. Revise list of required training including: 1 Jul

        a. Position descriptions.
        b. CG requirements.
        c. Personnel interviews with supervisors and employees
            for input and feedback on critical jobs when
            necessary (listed by priority).

            1) G-ACS
            2) Projects
            3) G-APS
            4) G-AQA
            5) G-APA
            6) G-AM
            7) G-AL
            8) G-A76

	MILESTONE	TARGET COMPLETION DATE

C. Create a training data base.

1. Establish Data base using DATATRIEVE on VAX requires: 15 Dec

    a. Define information required.
    b. Define reports required including:
        1) Number of people trained.
        2) Quotas used.
        3) Cost.
        4) Training needed.
        5) Training scheduled.
    c. Establish prototype system.

2. Start entering new requests into data base.   30 Dec

3. Research and enter training accomplished into data base.   15 Jan

4. Refine report formats.   30 Jan

5. Enter training required for each billet into data base.   15 Jul

6. Establish a separate training feedback data base to   1 Jul
include course value, quality, and evaluations.

    a. Determine feedback required.
    b. Enter feedback information into data base.
    c. Include feedback information on list of training
       available.

	MILESTONE	TARGET COMPLETION DATE

D. Submit FY88 Training Plan.

1. Determine required training for FY88.

    a. Solicit input from division officers and project   15 May
managers using the FY87 training backlog, training
required, list of training available, expected
employee turnover, etc.

    b. Develop FY88 draft training plan.   20 May

    c. Estimate costs.   29 May

2. Submit FY88 Training Plan to G-CAS and G-PTE using   12 Jun
the cost information gathered to date (see paragraph 3.).

3. Develop aggregate training costs.   1 Aug

    a. Estimate cost of training required to bring office up
to current requirements.

    b. Estimate annual recurring training cost.
        1) Estimate average annual turnover.
        2) Estimate average prior training experience.
        3) Estimate average annual training cost to
maintain required training levels.

    c. Advise the offices concerned of our acquisition
recurring training cost base.

FY86 Training Plan

Revise and Update
FY87 Training Plan

Establish Training
Requirements by
Billet

Create Training
Data Base
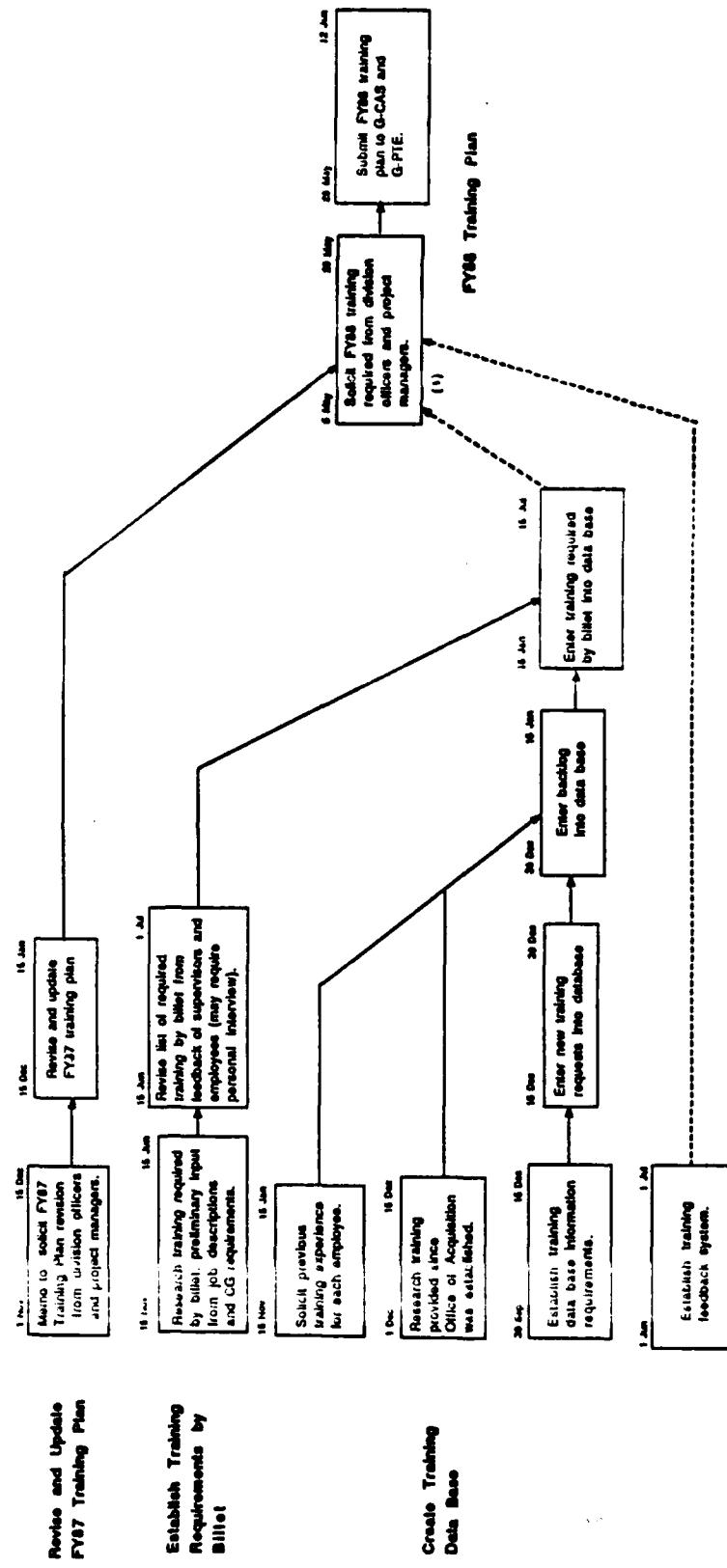
(1) Dotted line indicates that information from these sources, though not complete, will be used to formulate FY86 Training Plan.

Acquisition Training System
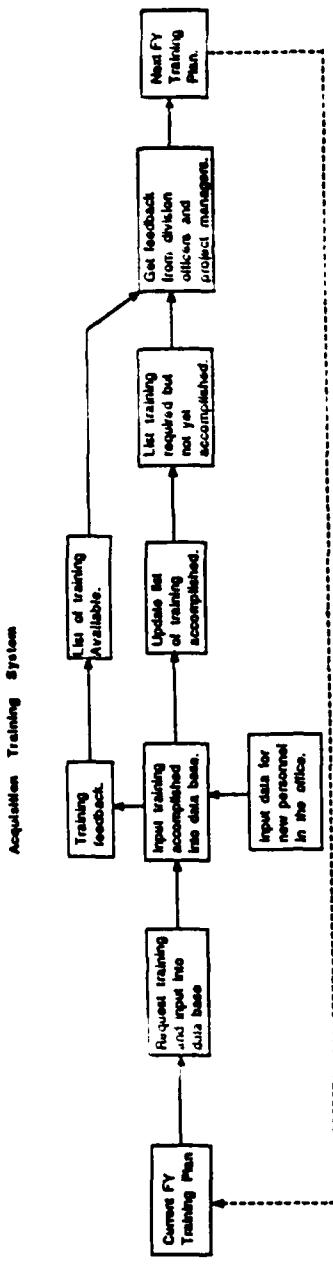
Scheduling Required Courses
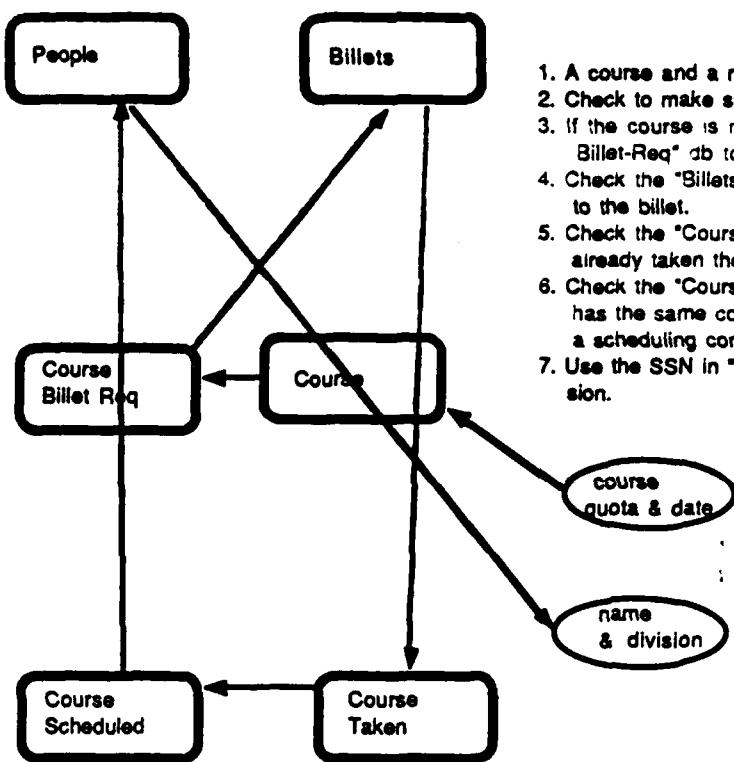
1. A course and a number of quotas are received.
2. Check to make sure the course is in the "Course" db
3. If the course is required then check the "Course-Billet-Req" db to find which billets require the cour
4. Check the "Billets" db to find which SSN is assigned to the billet.
5. Check the "Course-Taken" db to find if that SSN has already taken the course.
6. Check the "Course-Scheduled" db to see if that SSN has the same course already scheduled or if there a scheduling conflict for that SSN.
7. Use the SSN in "People" db to find the name and division.

APPENDIX J.

Appendix J contains several Coast Guard correspondence which highlights some of the key issues facing the Coast Guard Procurement Training effort.

The FY89 Issue Paper addresses the non-availability of DOD quotas to Coast Guard Contracting personnel.

The other two pieces of correspondence in this appendix were sent to the author as part of the research effort. This correspondence highlights the grade structure problems and other miscellaneous problems that are associated with the lack of a good Procurement Career Management Program.

ISSUE: CONTRACTING OFFICER WARRANT TRAINING PROGRAM

BACKGROUND:

Executive Order 12352 requires procurement personnel to be properly
trained to perform their duties. The Coast Guard has instituted a program to
ensure all procurment personnel who have the authority to commit the Federal
government to a contract receive training which is commensurate with the level
of their procurement authority. This program has been named the Contracting
Officer Warrant Program. The Program is centrally directed by the Chief of
Procurement Management (G-FPM). Authority to issue warrants rests with each of
the District Commanders, the Superintendent of the Academy, G-FPM for other
Headquarters Units and G-ACS for Headquarters Contracting Officers acting in
their role as Head of the Contracting Activity (HCA).

The Contracting Officer Warrant Program requires differing levels of
training for each of the three levels of contracting officer authority. The
required training builds upon previous training received. The type of
training (the specific courses required) may vary from year to year but in
the aggregate, the number of quotas required is generally consistent.

There are several courses required that are only available from DOD
training centers such as Ft. Lee, Virginia and Wright-Patterson AFB, Ohio. In
recent years we have found it more and more difficult to obtain individual
quotas from these installations or from other DOD sites where approved courses
are being taught. This is principally because DOD personnel have the highest
priority within the training system. We have attempted to remedy this
untenable situation by requesting courses from the DOD training centers be
taught on site at Coast Guard facilities and with the Coast Guard maintaining
the quotas. Our success has been marginal with but two courses having been
scheduled and taught in this manner.

With individual quotas seemingly unavailable, we need to have the
ability to fund one class session per year for each of the following cou   s
which are all required for contract warrants:

1. Management of Defense Acquisitions 8D-4320 - Ft.Lee, Virginia
2. Advanced Management of Defense Acq. 8D-F12 - Ft.Lee,Virginia
3. Contract Law   PPM-302 - Wright-Patterson AFB,OH
4. Principles of Contract Pricing   QMT-170 - Wright-Patterson AFB,OH
5. Contract Administration   PPM-152 - Wright-Patterson AFB,OH

The need for this type of training has increased as deficiencies in our
field procurements become better identified as a result of Acquisition
Management Reviews. Each trip has reinforced the need for more training in
negotiation techniques and the concurrent lack of field expertise in Contract
Pricing. The Procurement world has gotten more complicated as changes in the
statutes, most noticeably the Competition and Contracting Act, and the Federal
Acquisition Regulation have eliminated the historical bias toward Sealed
Bidding and increased the instances where negotiation or Competitive Proposals
are now appropriate.

The Catch-22 with the DOD installations is that they are reluctant to offer us the courses and management of the quotas without a firm committment on class size. We cannot offer them that committment without the ability to fund the course and insure the class is fully subscribed.

U.S Department
of Transportation

United States
Coast Guard

COMMANDING OFFICER————————— FEDERAL BUILDING
FACILITIES DESIGN AND   915 SECOND AVENUE
CONSTRUCTION CENTER (WEST)——— ——SEATTLE. WA 98174 -1011
                                          PHONE: (206) 442-1683

5000
25 February 1987

Mr. L.C. Vose
SMC 2771 NPS
Monterey, CA   93943

Dear Mr. Vose:

Reference is made to your letter of 16 January 1987 concerning
the development of a comprehensive training and education plan
for the Coast Guard acquisition workforce.

I am unable to comment specifically on GAO Report 86-161BR as I
have not had the opportunity to review it. My comments,
therefore, will deal with my views of acquisition training in
general.

I believe the recently instituted "Warrants Program" is a step in
the right direction. It adequately identifies the training that
is essential to assure the acquisition workforce has the
necessary training to professionally and cost effectively
procure the goods and services the Coast Guard needs . Using
this as a roadmap, individual training plans can be developed for
each employee. However, training funds are grossly inadequate.
For example my training budget for FY87 is $342.00 per employee.
An advanced course of substance can cost $1,000.00 including
travel and per diem.

Once an employee reaches Level III, the requirement for training
does not end. As you know Government procurement is constantly
changing. New statutes can cause major changes in the way we
acquire goods and services. The most recent example is the
Competition in Contracting Act. Additionally, decisions of
Boards of Contract Appeals and the courts influence the way we do
business. It is therefore important to routinely take refresher
courses to stay current. Again, funding makes it extremely
difficult to do this.

An additional problem, as I see it, many people, both acquisition
personnel and their managers, perceive that training is not that
important and they are "to busy to take the time away from the
office". That perception must change. The acquisition workforce
must become more aggressive in asserting their need for training.
I have been relatively successful in doing this.

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The impetus for training must come from the top--from Coast Guard Headquarters. I am pleased to see that in the past few months G-FPM has announced Coast Guard sponsored training programs. This impetus should continue. In addition, they should assure that the offices that are responsible for the procurement functions are made aware of the need and importance of training. With the fortncoming establishment of the Maintenance and Logistics Commanas, this includes G-ENE and G-ECV.

Additionally, I suggest the Coast Guaro emphasize the importance of belonging to and taking an active part in professional organizations such as National Contract Management Association and National Purcnasing Management Association. Both of these organizations nave professional certification programs which should be encouraged. These organizations also offer many training opportunities that can be very helpful to the acquisition workforce of the Coast Guard.

In summary, I believe the <u>first two areas which need to be resolved are funding and making both management and the acquisition workforce aware of the importance of training</u>.

I wish you success in your research project. Feel free to call me if you have any questions.

Sincerely,

D. N. ROBERTSON
Chief, Contracting Division

Commanding Officer
U.S. Coast Guard Yard

Curtis Bay
Baltimore, MD 21226
Phone:
(301) 789-1600
Ext. 251

fcp-100
4200

APR 10 1987

Larry Vose
SMC 2771 NPS
U. S. Coast Guard
Monterey, CA 93943

SUBJ: CAREER DEVELOPMENT AND TRAINING PLAN

Dear Mr. Vose:

As discussed in our telecon 4/9, attached is a copy of the draft
Procurement Career Development and Training Program which lists
the courses and experience requirements at individual grade levels.
Many of the listed courses should be amended, however, for discussion
purposes this should be all you need at this point.

Again, I am available to work with you further at your convenience
since I consider the entire area to be extremely important to the
Coast Guard.

Sincerely,

DENNIS J. DOUGHERTY
Chief, Procurement Dept.
By direction of the
Commanding Officer, YARD

Encl: (1) Career Development and Training Plan

Memorandum

U.S. Department of Transportation
United States Coast Guard

Subject: PROCUREMENT DEPARTMENT RECOMMENDATIONS
FOR IMPROVEMENT

Date: FEB 12 1987

From: Chief, Procurement Department

Reply to
Attn of:

To: Commanding Officer
Via: Management Officer

In April 1986, I accepted the position as Chief, Coast Guard YARD Procurement Department.

I was apprised of the previous department-wide problems and deficiencies by management and also reviewed the many critical audit reports by GAO, DOT, and Coast Guard AMR reviews.

During the past nine months, I have discussed the overall department needs with many concerned personnel including Procurement Department members, YARD Technical staff, YARD legal staff, YARD management, CG Headquarter's staff, and other agencies.

I deliberately did not draft any specific recommendations until the completion of the follow-up AMR report. Despite some favorable comments by the review team and subsequent endorsements by G-FPM, I find the overall performance and present capability of the YARD's Procurement Department to be deplorable.

The staff itself, although highly motivated and very dedicated, lack the requisite skills, education, and experience as an organization to be able to provide the YARD with satisfactory procurement service.

At the present time, although management has committed to an agressive training program for the department, it will prove to be an exercise in futility if not completely self-defeating unless the career ladder grade structure is addressed quickly. As individuals begin to complete the required training courses, they will naturally seek out better career opportunities for which they have become qualified at other agencies. The net result is a double drawback to the YARD's procurement program, i.e. lost productivity while personnel are in training, and then having to replace staff members who have completed training and then leave. To resolve this cyclical effort of TRAINING/RECRUITMENT/RE-TRAINING, etc., we must establish a career development and training program to provide for a stable workforce where staff members can be assured of a career path of advancement with satisfactory performance.

Until this is accomplished any other attempts by management to improve the situation in the Procurement Department are useless. G-FPM strongly supports this position and has recommended such a change in the last two AMR reviews (1/86 and 11/86).

After this critical first step is effected, there are many other changes or improvements which should be made to provide for a more efficient and effective Procurement Department.

My recommendations are:

1) Establish career journeyman level positions in procurement

    (a) 1102 series GS-5/12
    (b) 1105 series GS-4/7
    (c) 1106 series GS-2/6

2) Finalize and implement career development and training plan

3) Establish permanent division for Contract Administration

4) Establish permanent (new) division for construction contracts

5) Re-define/expand Procurement Support Division

6) Establish new position - Administrative Assistant GS-7/9/11

7) Eliminate time clock

8) Establish new telephone system throughout the department

9) Procure and install systems furniture and rugs throughout department

10) Modernize contract filing system

11) Establish a modern system of electronic mail transmission between CG facilities including YARD/Headquarters, YARD/other CG facilities and Headquarters to all CG components. Also provide for Intra YARD Transmission i.e., Procurement/SICP, Procurement/Industrial, Procurement/CPO, etc. System similar to the IBM 5520

12) Establish a YARD-wide training program through a commercial contract to prepare YARD Procurement Manual and conduct quarterly training sessions for Technical/Requirements personnel

13) Automate small purchase function

14) Establish mail and file room operation within Procurement Support Division to handle all mail receipt, bid and proposal preparation, reproduction, mailing, logging, receipt and distribution for all department solicitations. Also provide for control of all contract files

I am available to discuss these recommendations in more detail.

Attached are present and proposed organization structures and staffing for the department.
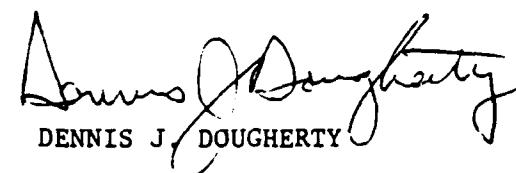
DENNIS J. DOUGHERTY

Attachments: as stated

TRAINING: PROBLEMS PERCEIVED

(DISTRIBUTED AT DOT PROCUREMENT CONFERENCE)

Not enough training: insufficient funds and training slots, indicating that training is not a priority.

Employee cannot apply, in his/her workplace, training received.

Inadequate notice of training before the class starting date.

Specialized and general training not available.

Yearly budget restrictions.

The system for getting people trained is not working. There is no central focus, no one individual with defined responsibility and authority. There are too many individuals involved, contributing to the collapse of the system.

There is no "piggybacking" with other Divisions to take advantage of training opportunities.

Training records are not maintained consistently and are not otherwise readily available.

Employees do not know what training is available to them. Training opportunities are neither identified nor communicated to the individual employee.

Supervisors are not involved in training. They should know what training is available and accept responsibility for getting their employees trained.

There is a lack of effective advance planning for training.

There is no committment of funds for mandatory training.

Supervisors lack adequate knowledge of the training system.

Not enough attention is given to the quality of training. Pre-course assessments should be made regarding (1) applicability of the subject matter, and (2) the quality, reputation and references of the instructor.

There is a lack of Current Proficiency training (through refresher courses, continuing education classes).

The agency does not have a committed training staff and, consequently, lacks adequate resources to conduct an effective training program.

Individual employees do not know what the training process is or how it is supposed to work.

There is a lack of committment to training at all levels of management.

Consideration should be given to utilizing employees for in-house training classes.

The equality of training assignments is questionable.

Training quotas are assigned without adequate consideration given to personnel availability.

Consideration should be given to alternative training methods such as correspondence courses and video tapes.

Consideration should also be given to alternative methods of financing and scheduling training. For example, if Government funding is not available, cost sharing could be considered.

Mandatory training courses should employ pass/fail grading systems.

The agency should consider utilizing training consultants to assess its training program.

Employees should recognize and accept their responsibilities to pursue and obtain training opportunities.

LIST OF INTERVIEWS

Anastasi, Richard, CDR USN – Director Contracting Division, Naval Supply Center, Puget Sound, 23 April 1987.

Arrn, Jim – Procurement Analyst, Department of Commerce, 7 May 1987.

Bassin, Carol – Procurement Training Coordinator, Nuclear Regulatory Commission, 21 April 1987.

Beck, David – Chief Acquisition Management Review Team, U.S. Coast Guard, 27 February 1987.

Bolden, Gwenn, G-FPM – Member DOT Acquisition Advisory Council, U.S. Coast Guard, 28 February 1987.

Brickbill, Susan – Contracts Lawyer, Department of Energy, 7 April 1987.

Clogan, John – Project Officer for Acquisition Training, Federal Aviation Administration, 28 April 1987.

Cosby, Lou – Chief Contract Administration, USAF Logistics Command Wright-Patterson AFB OH, 17 March 1987.

Davis, Alma, B. – Education Development Specialist, Federal Acquisition Institute, 2 April 1987.

DeMayo, Peter, Adm. USN – Head NAVAIR Ø2 (Contracts), 17 April 1987.

Dougherty, Dennis – Chief of Contracting, USCG Yard Baltimore MD, 8 April 1987.

Dove, Michael, Defense Manpower Data Center, 2Ø January 1987.

Dunn, Steven W. – Chief Supply Section, USCG Institute, 28 April 1987.

Duvall, Phil, LtCol. USAF – Commander DCASPRO Ford Aerospace/OIC GET and ATD, 22 January 1987.

Dwyer, John L., LTC USAF, ACE-II Implementation Group, Defense Systems Management College, 26 March 1987.

Erste, Louis, Doctoral Candidate, Cleveland State University, 2Ø May 1987.

Gregory, Phil – Chief of Procurement, USCG Aircraft Repair and Supply Center, Elizabeth City NC, 28 April 1987.

Higgins, Linda – Branch Chief, G-FPM, U.S. Coast Guard, 29 April 1987.

Hixton, Mark, Col. USMC – Program Manager, NAVAIR, 7 May 1987.

Jendry, Chris, Ex-Chairman, Career Board, Department of Energy, 21 April 1987.

Kausal, Tony, - Director of Contracting and Manufacturing, USAF Satellite Control Facility, Sunnyvale CA, 21 November 1986.

Kester, Gay, G-FPM, Warrants Program Coordinator, U.S. Coast Guard, 28 February 1987.

Kinney, Shirl - Procurement Training Coordinator, Department of Treasury, 8 April 1987.

Lamm, David V. Dr., Academic Associate 815 Program, Naval Postgraduate School.

Logan, Steve - Chairman, Procurement Career Board, Department of Energy, 5 May 1987.

Lynch, J. Richard, Lt. USCG - Acting Assistant Branch Chief, G-FPM, Numerous Times.

Martino, Roger - Chief, Procurement Management Division, Department of Transportation, 27 April 1987.

McCarren, Kevin, Lt. USCG - Training Officer, Office of Acquisition USCG, 28 February 1987.

McFadden, LCDR USCG, Personnel Manager, G-A, 17 February 1987.

McQuillan, Susan - Education Director, National Contract Management Association, 12 February 1987.

Paddock, John, Program Manager, General Electric, 21 May 1987.

Parker, William, LCDR USCG - Chief of Procurement, USCG Reserve Training Center Yorktown VA, 8 April 1987.

Perisano, Ann - Chief of Contracting, USCG Supply Center Brooklyn, 7 April 1987.

Petkoff, Mary - Procurement Training Coordinator, Goddard Space Center NASA, 9 April 1987.

Pitts, Carol - Senior Procurement Analyst, Department of Transportation, 28 April 1987.

Roberts, Nancy, Professor Naval Postgraduate School - Thesis Second Reader.

Robertson, Don - Chief of Procurement, USCG Facilities Design and Construction Center (West), 31 March 1987.

Ronquillo, M. A., CWO USCG, Purchasing Officer, USCG Aviation Training Center Mobile AL, 11 March 1987.

Sanders, Meredith - Procurement Training Coordinator, NASA Headquarters, 16 April 1987.

Shackelford, John S., LtCol. USA - Director of Contracting Fort Ord CA, 6 February 1987.

Shaypack, Arnie, CDR, Member ACE-II Study, Contracting Officer, Defense Logistics Agency, 31 March 1987.

Smith, Richard D., Brigadier General USAF - Deputy Chief Contracting and Manufacturing Air Force Logistics Command, 12 March 1987.

Spence, CWO, Procurement Officer, USCG Station Alexandria VA, 27 April 1987.

Stuart, Jess, Capt. USN, Program Manager, NAVAIR, 5 March 1987.

Sueur, Rhys, LCDR USN - Director, Purchase Division, Naval Supply Center Oakland, 1Ø April 1987.

Wenz, Mary - Director of Procurement Training, Environmental Protection Agency, 7 May 1987.

Wolf, Jerry - Director, Procurement Training U.S. Army Material Command, 2Ø January 1987.

Worley, Elliot - Education Specialist, Federal Acquisition Institute, 17 May 1987.

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3. Office of Personnel Management, <u>Position Classification Standard for Contracting Series. GS-11Ø2</u>, OPM TS-71, December 1983.

4. Federal Acquisition Institute, <u>Guidelines for Developing Procurement Career Programs</u>, October 198Ø.

5. Defense Contracting and Acquisition Career Management Board (DC/ACMB), 25/26 March 1987.

6. Senate Federal Expenditures Subcommittee Oversight Hearing, Report Nr. 98-214, February 1982.

7. Yost, Paul Admiral USCG - Commandant, "State of the Coast Guard", <u>Commandant's Bulletin</u>, Issue 1Ø-87, pp 6-19, 8 May 1987.

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1Ø. <u>Realignment of Management and Support Functions of the U.S. Coast Guard</u>, February 1987.

11. Burnley, James - Deputy Secretary Department of Transportation, Opening address to DOT Procurement Conference (day one), 27 April 1987.

12. Bedell, Robert - Administrator Office of Federal Procurement Policy, Opening address to DOT Procurement Conference (day two), 28 April 1987.

13. <u>A Quest For Excellence</u>: Final Report to the President's Blue Ribbon Commission on Defense Management, June 1986, (Packard Commission).

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15. Preston, C., "Congress and the Acquisition Process: Some Recommendations for Improvement", <u>National Contract Management Association Journal</u>, Vol 2Ø, Issue 1, pp. 7-12, Summer 1986.

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